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THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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Housing Scheme near Rambouillet. Architect, Marcel Roux

Problem No. 7 Intense radiant heat

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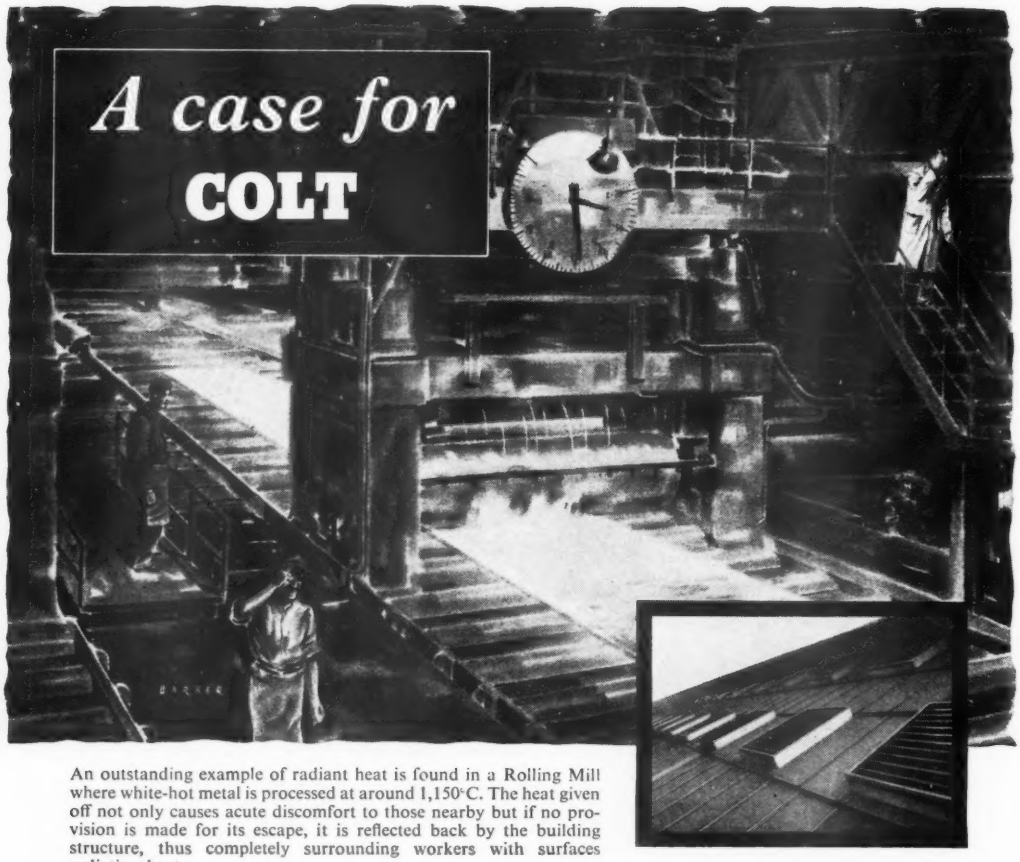

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FEBRUARY 1957 THIRD SERIES VOL. 64 NUMBER 4 TWO SHILLINGS AND SIXPENCE

EDITORIAL

Bon Voyage to the President and Secretary

The President, Mr. Kenneth Cross, and the Secretary, Mr. C. D. Spragg, leave London Airport on 20 March to start their ten weeks' tour. Their first stop will be at Singapore and from there they will go to Australia, New Zealand, Canada and the United States. They hope to visit most of the main cities in Australia, New Zealand and Canada.

Detailed programmes are not yet available, but the three main items in the itinerary are the Annual Convention of the Royal Australian Institute of Architects at Melbourne, the 50th Anniversary of the Royal Architectural Institute of Canada at Ottawa and the Centenary Celebrations of the American Institute of Architects at Washington. They will also spend a short time at San Francisco and New York during their visit to the United States.

Cost Research Committee

The Cost Research Committee, whose appointment was announced in the JOURNAL for November 1956, were given the following terms of reference:—

(*a*) To consider the points raised at the British Architects' Annual Conference 1956 held at Norwich in relation to those aspects regarding which architects can contribute to economical building and to suggest lines of action where merited.

(*b*) To consider the formulation of some positive method by which liaison can be established between the R.I.B.A. and the R.I.C.S. Quantity Surveyors' Committee.

Early in their proceedings the Committee settled as one of their first tasks the collection of information on methods which provide architects with a systematic means of working within cost limitation before going out to tender. This, the Committee believe, should provide a method of cost control during design.

The Committee will be very glad to receive from members information on any method of cost analysis and cost planning which is in use in their offices. All such information should be sent to the Secretary, R.I.B.A.

Joint Standing Committee, Scotland

Mr. William McCrea, President of the Royal Incorporation of Architects in Scotland, has been elected Chairman for the ensuing three years of the Joint Standing Committee of Architects, Surveyors and Building Contractors in Scotland.

Le Nouveau Visage de la France

The exhibition of photographs of Modern French Architecture was opened by H.E. The French Ambassador, M. Jean Chauvel on 20 February. It will remain on view in the Henry Florence Hall until 23 March.

The exhibition has been organised by the Direction Générale des Affaires Culturelles et Techniques, with the co-operation of the French Embassy in London.

Some of the photographs are in colour and include prints of the Unité d'Habitation at Nantes designed by M. le Corbusier.

The photograph of the housing scheme near Rambouillet was sent over in advance of the exhibition for use as a cover picture for the JOURNAL.

'Architecture as a Career'

A small travelling exhibition with this title has been prepared by the Royal Institute to give young people information about the profession of architecture. It consists of nine panels, the first of which is a brief introduction to architecture as a career, stressing the architects' responsibility to the community. Other panels illustrate the work of architects in various fields such as local authority housing, houses for individual clients, schools, industrial and commercial buildings, churches, shops, and buildings for health, transport, entertainment, and architects' work overseas.

There is a panel outlining the nature of an architect's work on being commissioned to design a building and the final panel winds up with information about entry into the profession and the choice of jobs open to qualified architects.

The exhibition was on view at the R.I.B.A. from 17–24 January and is now on tour.

Copies of the exhibition may be booked.

The A.I.A. Journal

Mr. Henry H. Saylor has been succeeded as editor of the JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS by Mr. Joseph Watterson, to whom we offer our congratulations. Mr. Saylor is at present engaged in writing a history of the A.I.A. as part of the programme for the Centennial Celebrations which the American Institute is holding in Washington, D.C., 14–17 May.

The theme of the Centennial Programme is 'A New Century Beckons'.

Council Matters

At the Council Meeting held on 5 February, The President in the chair, the Secretary announced that Mr. Charles Wheeler, C.B.E., President of the Royal Academy, had accepted the Council's nomination for election as an Honorary Fellow, and that Mr. Leon Chatelain, Jr., President of the American Institute of Architects, had accepted nomination for election as an Honorary Corresponding Member.

It was unanimously resolved that the R.I.B.A. Award for Distinction in Town Planning be conferred upon Mr. Donald E. E. Gibson, C.B.E. [*A*].

R.I.B.A. Architecture Bronze Medal: The Sheffield, South Yorkshire and District Society of Architects and Surveyors. Formal approval was given to the award made by the Jury of the Sheffield, South Yorkshire and District Society of Architects and Surveyors for the period of three years ended 31 December 1955 in favour of the Divisional Police Headquarters, Silverlands, Buxton, designed by Mr. F. Hamer Crossley [*F*], County Architect, Derby.

The next item concerned the important question whether work has fallen off or not. At the request of the National Consultative Council of the Building and Civil Engineering Industries, members of the R.I.B.A. Council were asked to give, in confidence, their estimates of the present trends of activity in the industry. Replies were collected and from these a memorandum was prepared and submitted by the Council to the N.C.C. The consensus of opinion was that there was definite evidence of a substantial decline in the amount of new work being started, the decline being somewhat more marked in the smaller classes of building, and that this was due to the 'credit squeeze', since the inquiry had been made before there could have been time for further effects, if any, caused by the oil crisis to become apparent.

After that the Council were informed that it had been decided to postpone until 1958 the 5th Assembly and Congress of the International Union of Architects which was to have taken place in Moscow in 1957. In the light of this decision, the Council expressed doubt as to whether it would be opportune to hold the 6th Assembly and Congress in London in 1959 as projected and have under consideration the possibility of its postponement until 1960.

'All-in' tenders for work overseas was the subject of discussion next. The term 'all-in' tenders means a comprehensive offer for design, specification and construction, including, if mutually agreed, supervision.

The Council considered replies to their inquiry from the Commonwealth Allied Societies. From these it was decided that the agreement made between the Royal Institute and the Export Group for the Constructional Industries in connection with 'all-in' tenders for work overseas in March 1956 should not be extended to Commonwealth countries apart from India and Pakistan.

The next point concerned arbitrators. Approval was given to a recommendation of the Practice Committee that a series of lectures for younger members should be arranged on the work of arbitrators.

Going on to the International Building Exhibition, Berlin, 6 July to 27 September 1957, the Council were informed that the Joint Committee on Structural Concrete were proposing to organise visits to Berlin during the International Building Exhibition. Arrangements are proposed for parties of architects and engineers to make sponsored visits, costs of travel being defrayed by the individual. The Council approved the proposal for joint sponsorship of these visits.

The Council approved also a recommendation of the Public Relations Committee that the title of the Symposium to be held in May should be 'Family Life in High Density Housing: The Design of Space about Buildings' in substitution of the title 'Designing for Children in High Density Housing' as reported in the Notes from the Minutes of the Council Meeting held on 9 October 1956.

William Morris Society

On 19 February, Dr. Nikolaus Pevsner [*Hon. A*], gave an address at the R.I.B.A. on 'Architecture and William Morris'. He is a member of the William Morris Society.

The Society was founded in 1953 at a commemorative meeting at the Red House, Bexley Heath. Its object is to provide a forum for the exchange of ideas on Morris's contemporary influence over the whole range of his artistic and political activities, and to spread the knowledge of his activities and sponsor publications illustrating the work of Morris and his circle. Other architects on the Committee of the Society include Mr. John Brandon-Jones [*A*], Mr. R. Furneaux Jordan [*F*] who is giving a lecture on 28 May on 'The Mediaeval Vision of Morris', and Mr. Graeme Shankland [*A*], Honorary Secretary, 35 Christchurch Hill, Hampstead, N.W.3, from whom a full list of future meetings may be obtained. They are held at the Art Workers' Guild, 6 Queen Square.

N.F.B.T.E. Annual General Meeting

At the annual general meeting of the National Federation of Building Trades Employers, held on 30 January, Mr. L. A. Walden was unanimously elected President for the year 1957 and was installed by the outgoing President, Mr. Nigel Hannen. Mr. C. P. Howells was elected senior Vice-President, and Mr. Norman Longley was re-elected Hon. Treasurer.

The report was adopted with few observations from the floor, the main matters that brought members to the microphone being the credit squeeze, apprenticeship, and water supplies for building. Small and medium-sized firms, it was said, were feeling the pinch of the credit squeeze more than the big organisations, and as they were largely responsible for erecting the 300,000 houses it was suggested that they deserved some recompense and that therefore the Government should be invited to provide for more equal distribution of work throughout the country.

A complaint about the cost of water supplies for building, and the differing methods by which it was assessed, aroused sympathetic murmurs from the floor; it being instanced in the case of one particular job that had it been situated ten miles away the difference between the costs for water supply would have been £155.

Although the indications were that there would be a falling off in work, a long-term view should be taken and adequate provision for apprenticeship and training be made, that the influx of members into the industry might be maintained.

Birmingham School of Planning

For some time members of the West Midlands Branch of the Town Planning Institute and the Birmingham and Five Counties Architectural Association have been making efforts to provide facilities for planning education in the Midlands.

The need for graduate studies in planning was also felt by the Birmingham School of Architecture, whose head is Mr. A. Douglas Jones, A.M.T.P.I. [*F*], and this gap in planning education has now been filled by the establishment by the City of Birmingham of a new School of Planning as a department of the College of Arts and Crafts which opened last month.

The Head of the new school is Mr. Leslie B. Ginsburg, A.A. Dip., S.P. Dip., A.M.T.P.I. [*A*], who was previously Lecturer in Town and Country Planning at the University of Manchester. He is also author of a recent report on Regional Planning in Europe prepared for the United Nations Bureau of Social Affairs.

The school offers courses at both Intermediate and Graduate level, and it is hoped that in due course the Diploma granted by the College of Arts and Crafts will be recognised by the Town Planning Institute as an exempting examination. The address of the school is 53 Broad Street, Birmingham 1.

The Paris Salon

The President of this year's Paris Salon is M. Labro, an architect. Members who may wish to exhibit are reminded that the reception day in London is 1 March, at the address of the agents, James Bourlet and Sons Ltd., 17 and 18 Nassau Street, Mortimer Street, London, W.1, from whom the necessary forms are available on application.

I.U.A. Fifth Congress Postponed

In the JOURNAL for November 1956 an outline was given of the proposed programme of the Fifth I.U.A. Congress in Moscow. Information has now been received from the Secretary-General of I.U.A. that it has been decided to postpone the Congress until 1958.

In the meantime preparatory work on the Manual on Planning is to continue.

The U.K. contribution to the International Exhibition illustrating the theme of the Congress will consist of material to be provided by the London County Council, Harlow New Town and the City of Coventry on their respective achievements in post-war planning and architecture.

B.R.S. Digest for March

In an old book on Iceland, included in the list of chapter headings at the beginning is one on 'Snakes in Iceland'. On reaching this particular chapter the reader finds that it consists only of the simple statement that 'There are no snakes in Iceland'.

Similarly there will be no Digest in the JOURNAL for March.

There has been a hitch of some kind in its preparation and it has been abandoned. Members are warned in advance that if they do not find it in their copy it is not an oversight.

B.R.S. Digest No. 97 will be included with the April JOURNAL.

H. B. Creswell

The JOURNAL salutes with admiration the author of *Honeywood File* who recently received congratulations from the President R.I.B.A. on reaching his fiftieth year as a Fellow of the Royal Institute.

To meet Mr. Creswell is to realise that 87 is no age at all. He is made of the same indestructible fabric as Sir Winston Churchill. A new series that is being published in THE ARCHITECT AND BUILDING NEWS will give us the nearest thing to an autobiography we are likely to get.

If any one book can be said to have formed a bond between members of the profession it is Mr. Creswell's early masterpiece. The JOURNAL extends its warmest encouragement to him in the writing of the new series. Sir Arthur Conan Doyle was badgered by his admirers until he agreed to restore Sherlock Holmes to life after his premature end at the hands, was it?, of Dr. Moriarty. And so it is with *Honeywood* and *Grig*; we want the mixture as before of fun and sense blended by one who while not prolific as a practitioner has architecture in his bones and can put down on paper the very stuff of our common (and uncommon) experiences.

The MS. of *Grig*, beautifully bound and ornamented by Anthony Gardner, O.B.E., was presented to the R.I.B.A. Library by the author in 1955.

Moving from the Slums

Housing authorities in England and Wales have had sent to them by the Ministry of Housing and Local Government copies of the seventh report by the Housing Management Sub-committee of the Central Housing Advisory Committee on the management problems involved in rehousing families from unfit houses, which is designed to assist local authorities, especially those who are tackling large-scale slum clearance for the first time.

(Incidentally the Housing Committee of the United Nations Economic Commission for Europe has changed the phrase 'slum clearance' to 'clearance of dwellings unfit for human habitation'.)

Slum areas, says the report, are over-provided with shops and on new housing estates and in redeveloped areas far fewer shops will be built.

'We believe that the provision of a number of single small shops to be run as general stores within easy reach of most of the houses would do as much as anything else to help new tenants feel at home. They have been successfully provided by some authorities and the practice is recommended.' Plans for single shops are given in an appendix.

The title of the report is 'Moving from the Slums', H.M.S.O., price 1*s.* 9*d.*

R.I.B.A. Diary

THURSDAY 21 FEBRUARY–SATURDAY 23 MARCH. Exhibition—*Le Nouveau Visage de la France*. Mon.–Fri. 10 a.m. to 7 p.m., Sat. 10 a.m. to 5 p.m.

MONDAY 25 FEBRUARY. 6 p.m. Library Group Meeting. *Fonthill, the Building and its Creators*—H. A. N. Brockman [*L*].

WEDNESDAY 27 FEBRUARY. R.I.B.A. Dinner at the Dorchester Hotel. 7 for 7.30 p.m.

TUESDAY 5 MARCH. 6 p.m. General Meeting. *Building in the Landscape*—G. A. Jellicoe [*F*].

The Royal Gold Medal for Architecture, 1957

HER MAJESTY THE QUEEN, on the recommendation of the Royal Institute of British Architects, has awarded the Royal Gold Medal for the Promotion of Architecture in the year 1957 to Hugo Alvar Henrik Aalto (H.C.M. Finland).

Aalto was born at Kuortane, Finland, in 1898. He holds the Diploma of Architecture of the Helsinki Polytechnic which he obtained in 1921.

While still a student he built his first house, for his parents at Alajärvi. Amongst his earliest work was a small pavilion for an exhibition of forestry and agriculture in the village of Lapua, North Finland, made of wood and with an undulating wall. The use of wood has continued as a characteristic of his work and the undulating wall is also a feature very much associated with Aalto. In 1923 he worked as an assistant in offices concerned with the Gothenburg Fair.

In 1924 he married Aino Marsio who also held the architecture diploma from the same school in Helsinki and from then onwards they worked in professional association together, their work being signed by them both.

Between the years 1924 and 1929 Aalto worked on a number of buildings including a theatre at Jyväskylä, 1925; repairs to three churches, 1925–28; a building for the Society of Agriculture at Turku which included a bank, 1927–28; an hotel block which included a theatre and shops also at Turku, 1927–28; and an apartment house at Turku, 1929.

Before he was thirty Aalto was commissioned to execute three important buildings—the Turun Sanomat building, the Viipuri library, and the sanatorium at Paimio (for which he also designed the furniture). These commissions were the result of competitions. With the building of the headquarters office for the newspaper *Turun Sanomat* he first attracted notice outside Finland and his work became more widely known with the building of the municipal library at Viipuri, 1927–35, with its notable undulating ceiling. With his work on the sanatorium at Paimio, 1929–33, he impressed his name more definitely on the world of art and architecture. Aalto has always been greatly interested in the design of furniture and he later formed the well-known furniture company, Société Artek, which from 1942 was directed by his wife.

His reputation was further increased by the house which he and his wife built at Munkkiniemi in 1936, by the Finnish Pavilion at the Paris Exhibition of 1937, by the cellulose factory at Sunila 1936–39, and by a country house built in 1939 at Noormarkku called the Villa Mairea for his friends Maire and Harry Gurlichsen.

In 1939 Aalto first went to America and was responsible for the Finnish Section of the World's Fair at New York, another commission won by competition. The success of his pavilion at this exhibition led to an exhibition of his work at the Museum of Modern Art in New York which later was shown at some six other centres in the States. He was subsequently invited to lecture at the Massachusetts Institute of Technology.

During the war he worked on town-planning schemes including one for Oulu, a city on a group of islands; and at Avesta in Sweden; also at Rovaniemi in Lapland. In 1947 he designed and carried out a hostel for students at Cambridge, Massachusetts, and among his other later work was the tomb of the architect Uno Ullberg at Helsinki in 1945, the industrial quarter (residential and factory) for the Société Strömberg at Vaasa in 1944–47, the convalescent home at Noormarkku, 1945–46, and the factory at Karhula for the Société Ahlström, 1945–47.

The Town Hall of the Civic Centre at Säynätsalo is remarkable for its unusual ceiling with its wooden trusses. This commission was also won by competition and his design included rooms for use later for municipal purposes as the town developed. At Muuratsalo he built himself an experimental house and workshops. The house is L-shaped and on the walls of the courtyard are decorative panels of bricks: the floor of the patio is designed in the same way.

His other more recent work includes the Sports Centre at Otaniemi where he was asked to design a large covered space sufficiently flexible to accommodate all types of sport normally carried on out of doors; headquarters design Institute of Engineers and Technicians, Helsinki; buildings for the Pedagogical University at Jyväskylä; the Old Age Pension Office at Helsinki, with many facilities besides offices for the employees; the cemetery and chapel, Kongers, Lyngby; the office building Rantatalo, Helsinki; and a clubhouse at Kallvik.

He is building a block of flats in the Tiergarten for the Internationale Bauausstellung, Berlin, 1957.

Aalto has been awarded the medal of honour of the Danish Society, Akademisk Arkitektforening.

Aalto's wife Aino died soon after the war but he has since married again.

Sanatorium, Paimio, 1929–33. Alvar Aalto, Architect

Futurism and Modern Architecture

By Reyner Banham, B.A.

Read before the R.I.B.A. on 8 January, the President in the chair

WHEN PROFESSOR PEVSNER published his *Pioneers of the Modern Movement*, twenty-one years ago, the position regarding Futurism seemed simple enough. There were no Futurist buildings, one Futurist architect, Antonio Sant'Elia, one Futurist Manifesto on Architecture and one Futurist town-planning project, *La Città Nuova*, both of these last being the work of the aforementioned Sant'Elia, and all this went in a footnote.[1] When Professor Giedion sent the third edition, revised and enlarged, of his *Space, Time and Architecture* to the printers in 1953, the revisions and enlargements did not affect his half-dozen or so paragraphs on Futurism, which had not, in the first place, said very much that was not in Professor Pevsner's footnote, seventeen years before.[2] But in the bare four years that have elapsed since, this tidy and apparently settled situation has blown apart like an art-historical time-bomb. At least two other architects, Mario Chiattone and Virgilio Marchi, have as good a right to be considered Futurists. We now know of some hundred and fifty published drawings and projects by Sant'Elia, but many experts no longer feel very certain that he was either a Futurist or the author of the Manifesto that appeared over his name. Nor can we any longer relegate Futurism to a marginal or footnote position in the Modern Movement—it may indeed be necessary, when the smoke has blown away, to put Sant'Elia in a marginal position to F. T. Marinetti, and rank the latter—*il megafono futurista*—beside, say, Adolf Loos and Auguste Perret, among the Pioneers.

The smoke, however, is a long way from settled, and peering into the murk, we can, at the moment, only perceive two rather solid questions: Was Sant'Elia a Futurist? and, How influential was Futurism, particularly on the first generation of Masters of Modern Architecture, the men who came to the top in the early 'twenties? Both questions should involve some discussion of the nature and programme of Futurism, but it would be simpler, and briefer, to discuss that while discussing the questions, and I propose to plunge immediately *in media res*, with the problem of Sant'Elia.

Antonio Sant'Elia died a hero's death in 1916 at the age of twenty-eight. A trained architect and engineer, whose professional life was not crowned with any notable successes, he left behind him a very large quantity of drawings, the Manifesto, and a shining legend of bravery and brilliance. And some question marks. He has rarely been discussed, outside the two professorial histories which I mentioned in my opening remarks, without misgivings being expressed about the authorship of the Manifesto. Carlo Carrà, the renegade Futurist, gave a circumstantial account of events in 1914 in his autobiography,[3] in which he claimed that he had been invited by Marinetti, the Futurist leader, to put pressure on Sant'Elia to make common cause publicly with the Futurists, with whom he had apparently been in contact spasmodically since 1912, but that when the Manifesto appeared in July 1914, Sant'Elia privately repudiated responsibility for some parts of it. There the matter rested until Giovanni Bernasconi entered the lists about eighteen months ago with the statement,[4] and subsequently the proof, that Sant'Elia had contributed a *Messaggio*[5] on architecture to the catalogue of an exhibition of the group *Nuove Tendenze*, with whom he exhibited in Milan in May 1914, and that the Manifesto was this *Messaggio* altered and extended by other hands, usually assumed (perhaps a little too hastily—more evidence is needed here) to be those of Marinetti and Cinti.

The publication of the Bernasconi documents, including the original text of the *Messaggio*, created a stir wherever research is proceeding on the history of the Modern Movement, and something like uproar in architectural circles in Italy. The uproar spread to the illustrated weekly press, and provoked some further repercussions, some more amusing than helpful, but including a letter from Ugo Nebbia[6] claiming, or admitting, that he himself had written the actual words of the *Messaggio*, on Sant'Elia's behalf, but adhering perfectly to the young architect's ideas.

The situation as we stand at the moment, then, is rather like the proverbial set of Chinese boxes: on the outside is something large and grandiloquent, the Manifesto, a Marinettian compilation[7]; inside that is something rather (but not much) less large and grandiloquent, the *Messaggio*, a Nebbian compilation; and inside that, semi-articulate like so many of his profession, Sant'Elia himself. And that, you might think, settles that.

So it does, in a sense, but only to open another question: Does that make Sant'Elia a Futurist or something else? A large section of Italian opinion has settled enthusiastically for 'something else'. They have their reasons; in a re-democratised Italy where men are hard at work trying to make democracy a success, Futurism is regarded with suspicion as part of the Fascist past, and many ex-Futurists are busy trying to cover their tracks. Sant'Elia's reputation as a pioneer, however minor, of the new architecture, and as the forerunner of those resolute young men who gave their lives for modern architecture and democracy in the concentration camps of the Second World War—Sant'Elia's reputation, they feel, must be kept free of the taint of Futurism. As a democrat I feel for them, as an art-historian nurtured, however ungratefully, in the tradition of Pevsner, Blunt and Wittkower, I must disagree with them. To have peeled off the admittedly Futurist additions from the head and tail of the *Messaggio*, to have removed the words *futurista* and *futurismo* that were added throughout, does not mean that the surviving text is not Futurist in tone, turn of phrase, and intention. To my mind it cannot be construed as anything else—or rather, what is new and original in it cannot be construed as anything else, for it contains a certain amount of ballast derived from the 19th-century Rationalist and Academic traditions, that is neither new, original nor Futurist.

In order to make clear the argument which follows, here is the text of the *Messaggio* as established by Bernasconi. It is quite brief and concentrated, and one of the most remarkable sets of ideas ever enunciated by an architect in this century.

The problem of Modern Architecture is not a problem of rearranging its lines; not a question of finding new mouldings, new architraves for doors and windows; nor of replacing columns, pilasters and corbels with caryatids, hornets and frogs; not a question of leaving a façade in brick or facing it in stone or plaster; in a word, it has nothing to do with settling on formalistic differences between new buildings and old ones. But to raise the new-built structure on a sane plan, gleaning every benefit of science and technique, settling nobly every requirement of our habits and our spirits, rejecting all that is heavy, grotesque and unsympathetic to us (tradition, style, aesthetics, proportion), establishing new forms, new lines, new reasons for existence, solely out of the special conditions of modern living, and its projection as aesthetic value in our sensibilities.

Such an architecture naturally cannot be subject to any law of historical continuity. It must be as new as our state of mind is new, and the contingencies of our moment in history.

The art of building has been able to evolve through time and pass from style to style while maintaining the general character of architecture unchanged, because in history there have been numerous changes of taste brought on by shifts of religious conviction or successive political regimes, but few occasioned by profound changes in our conditions of life, that discard or overhaul the old ones, as have the discovery of natural laws, the perfection of

[1] *Pioneers of the Modern Movement*, London 1936, p. 233, note 8.

[2] *Space, Time and Architecture*, 3rd edn. London 1954 pp. 319–20, 442–3.

[3] *La Mia Vita*, 1945. pp. 176 ff.

[4] RIVISTA TECNICA, Lugano, Sept. 1955, 'L'Espressionismo nei disegni di Mario Chiattone'.

[5] RIVISTA TECNICA, July 1956, 'Il Messagio di Antonio Sant'Elia'.

[6] L'EXPRESSO, Rome, 9 December 1956.

[7] The texts of the *Messaggio* and the Manifesto will be found confronted in the original Italian, with all alterations and additions noted, in L'ARCHITETTURA, Rome, November 1956.

technical methods, the rational and scientific use of materials.

In modern life, the process of consequential stylistic development comes to a halt. Architecture, tired of tradition, begins again, forcibly, from the beginning.

Calculation of the resistance of materials, the use of reinforced concrete and iron exclude 'Architecture' as understood in the classical and traditional sense. Modern structural materials and our scientific ideas absolutely do not lend themselves to the discipline of the historical styles, and are the chief cause of the grotesque aspect of modish constructions where we see the lightness and superb slenderness of girders, the fragility of reinforced concrete, used to obtain the heavy curve of the arch, the stolid aspect of marble.

The formidable antithesis between the modern world and the antique is determined by everything that has not been there to begin with. Into our lives have entered elements whose very possibility the ancients could not have suspected; material contingencies have crystallised, spiritual attitudes have arisen, with thousand-fold repercussions: first of all, the formation of a new ideal of beauty, still obscure and embryonic, but whose fascination already stirs the masses. We have, in fact, lost the sense of the monumental, the massive, the static, and we have enriched our sensibilities with a taste for the light and the practical. We no longer feel ourselves to be the men of the cathedrals and the moot-halls, but men of the Grand Hotels, the railway stations, giant roads, colossal harbours, covered markets, glittering arcades, reconstructions and salutary slum-clearances.

We must invent and build *ex novo* our modern city like an immense and tumultuous shipyard, active, mobile and everywhere dynamic, and the modern house like a gigantic machine. Lifts must no longer hide away like solitary worms in the stairwells, but the stairs—now useless—must be abolished, and the lifts must swarm up the façades like serpents of glass and iron. The house of cement, glass and iron, without carved or painted ornament, rich only in the inherent beauty of its lines and modelling, extraordinarily brutish in its mechanical simplicity, as big as need dictates, and not merely as zoning laws require, must rise from the brink of a tumultuous abyss, the street; which will no longer lie like a doormat at the level of the thresholds, but plunge storeys deep into the earth, gathering up the traffic of the metropolis, connected for necessary transfers to metal cat-walks and high-speed conveyor belts.

For these reasons I insist that we must abolish the monumental and the decorative; that we must resolve the problem of modern architecture without cribbing from photographs of China, Persia and Japan, or stultifying ourselves with Vitruvian rules, but with strokes of genius, and equipped only with a scientific and technical culture; that everything must be revolutionised; that we must exploit the roof-tops and put the basements to work; depreciate the importance of the façade; transfer questions of taste out of the field of petty mouldings, potty capitals and piddling porticoes, into the vaster field of the grouping of masses on the grandest scale; that it is time to have done with funereal commemorative architecture; that architecture must be something more vital than that, and we can best attain that something by blowing sky-high, for a start, all those monuments and monumental pavements, arcades and flights of steps, by excavating our streets and piazzas, by raising the level of our city, by re-ordering the earth's crust and reducing it to the servant of our every need, our every fancy.

AND I CONCLUDE IN DISFAVOUR OF

Modish architecture of every style and nation

Classically solemn architecture, hieratic, theatrical, decorative, monumental, graceful or pleasing

Preservation, reconstruction, reproduction of ancient monuments

Perpendicular and horizontal lines, cubic and pyramidal forms, static, grave, oppressive and absolutely foreign to our newest sensibilities

Use of materials that are massive, bulky, durable and expensive, opposed to the complex of modern culture and modern experience

AND I AFFIRM

That the new architecture is the architecture of cold calculation, temerous boldness and simplicity: the architecture of reinforced concrete, iron, glass, cardboard, textile fibres and all those replacements for wood, stone and brick that make for the attainment of maximum elasticity and lightness

That real architecture is not, for all that, an arid combination of practicality and utility, but remains an art, that is, synthesis and expression

That decoration, as something superimposed or attached to architecture, is an absurdity, and that only from the use and disposition of raw, naked and violently coloured materials can depend the decorative value of a truly modern architecture

And finally, I affirm that, just as the ancients drew their inspiration in art from the elements of the natural world, so we—materially and spiritually artificial—must find our inspiration in the new mechanical world we have created, of which architecture must be the fairest expression, the fullest synthesis, the most effective artistic integration.

Now, one thing about all this is obtrusively Futurist—the actual literary form, a statement followed by tabulated lists of disapprovals and affirmations, is the general one of all the early Futurist Manifestos, notably those on painting and sculpture in which Umberto Boccioni had a hand. However, since Ugo Nebbia is apparently responsible for the words, he may also be responsible for the manner of presentation as well. We must look, rather, at those Sant'Elian ideas to which Nebbia claims to have been faithful.

The basic strategic device of the *Messaggio* is to accept as true the main historical concepts of the 19th-century Rationalists and Academics—such as the political and social causation of superficial stylistic changes, the unchanging nature of the fundamentals of the architectural art—but as being true only down to a certain point in time, after which profound changes in the environment and technical proceedures introduce a break in historical continuity and the emergence of a new sensibility, a new ideal of beauty, a new concept of architecture and urbanism.

It is with this insistence on the new, the violent distrust of tradition and continuity that we are concerned here. This insistence and this distrust were the special business of the Futurists at this time; no other body of opinion—such as the Deutscher Werkbund, or Adolf Loos—possessed this hatred of the past, this intoxication with the evolving present, to so marked a degree, nor voiced it so loudly. Where anything like a Futurist tone of polemical violence, or mechanistic aspiration could be detected—as in the Cubist circle in Paris, or around Herwarth Walden and *der Sturm* in Berlin—then Marinetti or other Futurists were always involved.

If the general direction of Sant'Elia's argument was Futurist, so were its tactics and its details. To single out some instances: the anathema on traditional materials had been propounded in Boccioni's Technical Manifesto of Futurist Sculpture,[8] published two years earlier—indeed, Boccioni had specificially indicated cement, glass and metal, as well as what we should now term 'synthetics', as the coming sculptural materials—and in the same manifesto of Boccioni's there is an equally violent assault on the monumental and the classical. Further, the closing affirmation

Just as the ancients drew their inspiration in art from the elements of the natural world . . .

is simply a rather flat-footed paraphrase of part of another Boccioni Manifesto, that of the Futurist Painters, published in 1910, of which the relevant passage reads

Just as our ancestors drew the material of their art from the religious atmosphere that bore upon their souls . . . etc.

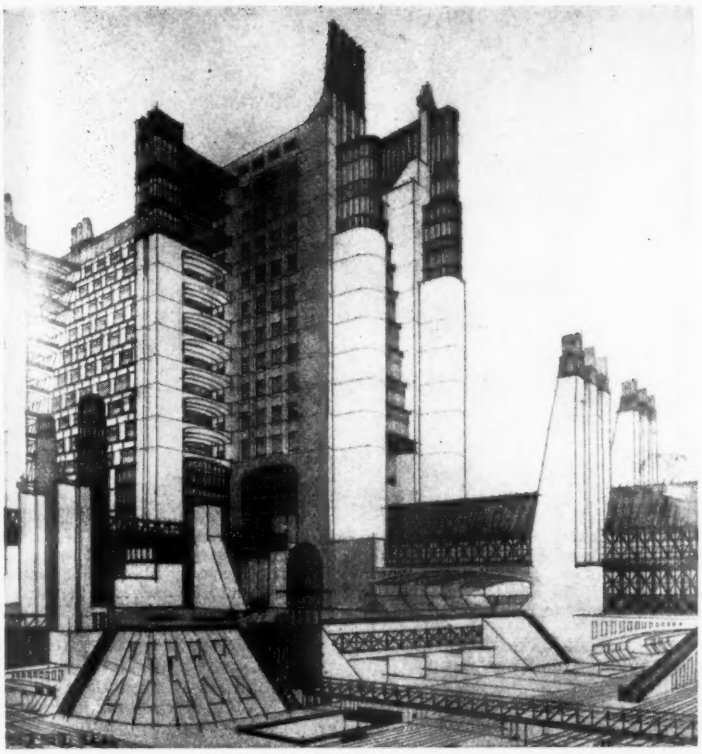
It is interesting to note in passing that Sant'Elia's version is, in fact, less up-to-date than Boccioni's—'Inspiration . . . natural world' sounds like mid-Victorian uplift, while 'material of their art from the religious atmosphere' sounds more like 20th-century *Geistgeschicht*. But the phrase remains Futurist, for all that, the debt is still to Boccioni. It is much the same with his debts to Marinetti, to whom must be traced the anathema on 'tradition, style, proportion, aesthetics', the giant townscape of stations, ports, the *Galleria*; the re-ordering of the earth's crust (and, incidentally, the power stations that appear among Sant'Elia's sketches), the new ideal of beauty stirring the hearts of the masses.

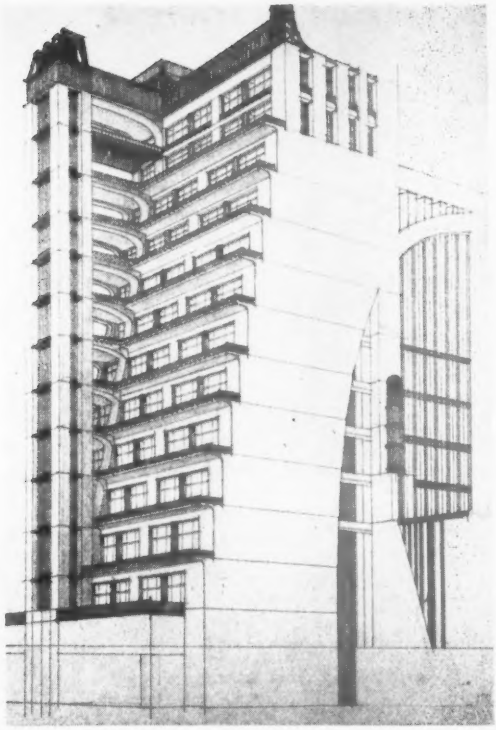
The new ideal of beauty, as such, is the easiest Marinettianism to spot because even people who know very little about Futurism are nevertheless likely to know of the fourth affirmation from Marinetti's Foundation Manifesto of Futurism published in 1909

We declare that the magnificence of the world has been enriched by a new beauty, the beauty of speed. A racing car . . . is more beautiful than the Winged Victory of Samothrace.

and the theme of mechanical beauty which he developed continuously from 1909 to

[8] The texts of the Manifesto of the Futurist Painters of the Technical Manifesto of Futurist Sculpture, and of the Foundation Manifesto of Futurism will all be found in the appendices to Umberto Boccioni's *Pittura, Scultura Futurista*, Milan, 1913.





Figs. 1 and 2. The most famous of Futurist architectural projects, *La Citta Nuova*, by Antonio Sant'Elia, 1, was exhibited in Milan in 1914. It proposed to solve circulation problems by channelling traffic through and under the buildings at several different levels, and the apartment blocks, like 2, were to be backed up together in pairs, with parabolic reinforced concrete arches spanning service and through roads.

1914 and beyond, was one of his greatest contributions to the Modern Movement, and is something I shall return to in a moment. The point to note here is that, also, he elsewhere linked the peculiar sensibility proper to this mechanical beauty to the masses, to

> men of the people without culture or education, who are nevertheless endowed with what I call the gift of mechanical prophecy, the flair for metals. They are workmen who have already undergone the education of the machine, and are in some way affiliated to machinery.[9]

Boccioni, too, sensed that the crowds in the streets of Milan were stirred by new awarenesses, new enthusiasms that still left the Italian intelligentsia untouched.

Taken all round, I think we can say that if Sant'Elia, living in Milan, the capital city of Futurism, during Futurism's most productive and tough-minded period, thought Futurist thoughts without contact with the Futurists or borrowing from them, then we are faced with the most monstrous art-historical coincidence of recent centuries.

Furthermore, when the *Messaggio* was taken over and converted into an overtly Futurist Manifesto, the additions and alterations then effected were by no means entirely to its disadvantage. The four paragraphs added at the head of the text are a swingeing denunciation of 19th-century shams and the iniquity of Academic education, a telling contrast between the genteel pretences of fashionable architecture and the agony of a mechanised civilisation crammed into horse-and-buggy towns. The tone is more lyrical, the language stronger than that of the *Messaggio*, but the line of thought is not alien to it.

Of the additions and alterations at the foot of the text, the first is the least helpful:

> I combat and despise
> All avant-garde pseudo-architecture from Austria, Hungary, Germany and America

which is simply the injection of Marinetti's irredentist politics into Sant'Elia's dislike of modish architecture, while the first of the added affirmations

> That oblique and elliptical lines are dynamic by their very nature . . .

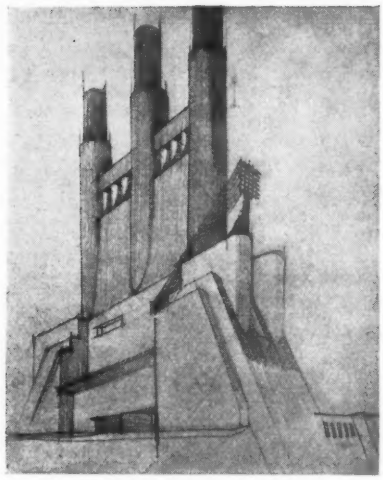
is only an extension of Sant'Elia's anathema on horizontals and verticals. The three affirmations added at the very end of the text, however, are of a different order of importance altogether. They are the ones that Sant'Elia is recorded as disagreeing with, but—ironically—they are also the ones on which his reputation as a prophet of the New Architecture largely rests

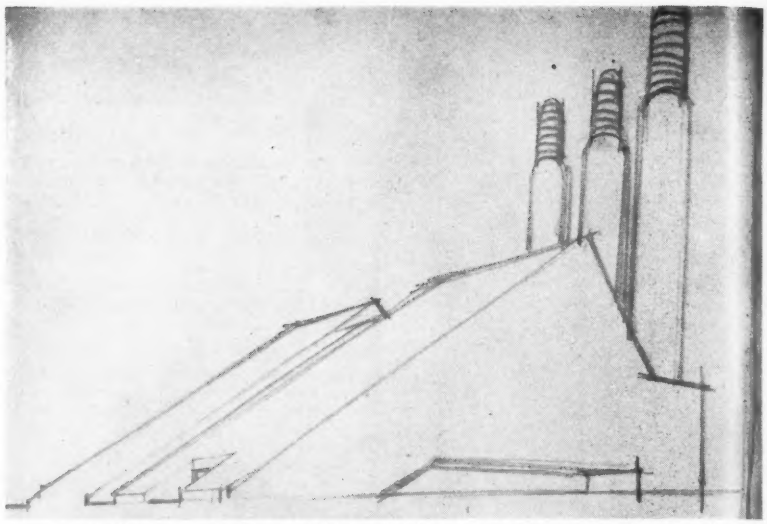
> That architecture as . . . following pre-established laws, is finished
>
> By architecture must be understood the power . . . to harmonise environment and Man . . .
>
> That . . . the fundamental characteristics of Futurist architecture will be expendability and transience. Our houses will last less time than we do; every generation must build its own city. . . .

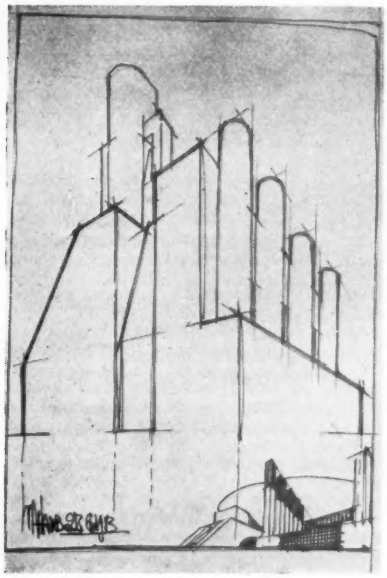
If Sant'Elia disapproved of this last one, which is only an extension of his anathema on durable materials, then he is thereby diminished as an architectural pioneer, lacking the courage to pursue his own ideas to their revolutionary conclusions, and it is Marinetti, not Sant'Elia, whom Professor Giedion, Professor Pevsner, Moholy-Nagy, Walter Gropius, Rob van t'Hoff and a host of others should have praised for anticipating the scrapping-and-replacing theories of the 'twenties.

Perhaps it is Marinetti they should have praised anyhow. It is possible, indeed commendable, to be revolted by Marinetti's later politics, just as it is possible and commendable to be revolted by the later politics of William Morris. But, as Moholy-Nagy pointed out in connection with Marinetti, it is possible to have very wrong ideas on some subjects and, at the same time, very right ideas on others. Many of Marinetti's ideas were very right indeed, like many of Morris's. The one awoke a social conscience, the other a mechanical sensibility. Marinetti, indeed, is the complement and completion of Morris, delivering

[9] *Le Futurisme*, Paris, 1912, p. 772.







Figs. 3, 4, 5, and below, 6 and 7. Other exhibits at the Milan Exhibition of 1914 (organised by the group *Nuove Tendenze*) included projects for power-stations, 3, 4, 5, by Sant'Elia, some of which attain a remarkably prophetic simplicity of form, and various projects by Mario Chiattone, a Swiss architect, whose ideas for industrial buildings, 6, ran close to Sant'Elia's, while he manifested a more original turn of mind in the design of apartment blocks, 7.

the arts of design from their dead-end in handicrafts, by his uncompromising dislike of Ruskin—

> Your deplorable Ruskin . . . with his sick dreams of a primitive agrarian life, his nostalgia for Homeric cheeses and legendary spinning-wheels, his hatred of machinery, steam and electricity.[10]

I call this sensibility *mechanical* that Marinetti awakened, not only because that is his own word for it, but also to distinguish it from that engineering sensibility that was being inculcated in the same years by German writers like Herrmann Muthesius and Walter Gropius, who also admired covered markets and railway stations, but admired them as *Denkmaler von Adel und Kraft*—monuments of mobility and strength. Strength might have interested Marinetti, nobility and monuments not. His discovery—and it can be fairly called a discovery among intellectuals and men of letters—was that machines could be a source of personal fulfilment and gratification, that telephones and typewriters, soda-siphons and cinemas, aeroplanes and automobiles had enormously extended the range of human experience at the personal, not social, level. Machines work for men, a man commands his own machines, he drives his own car, no longer has to share a train with a thousand other men. Marinetti's was the first generation of European intellectuals to be able to enjoy these new experiences, and he forcefully articulated his generation's responsive enthusiasm. Even the re-ordering of the earth's crust, the electrification of Italy, in his eyes, gave personal satisfaction to some individuals, as well as social wealth to the nation at large.

[10] *Le Futurisme*, p. 33.

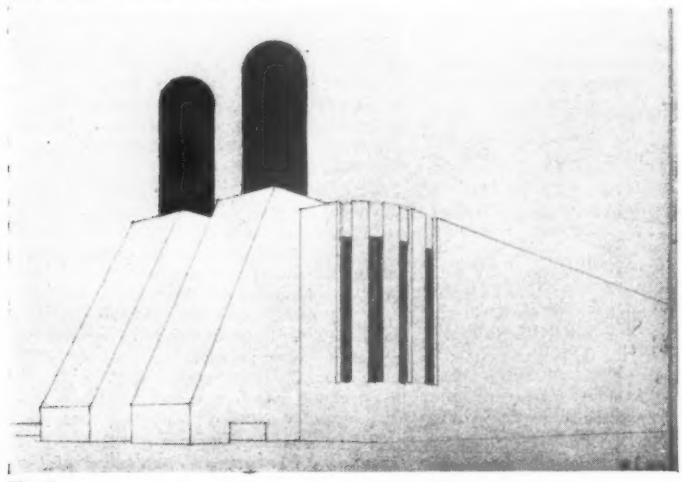


Fig. 6

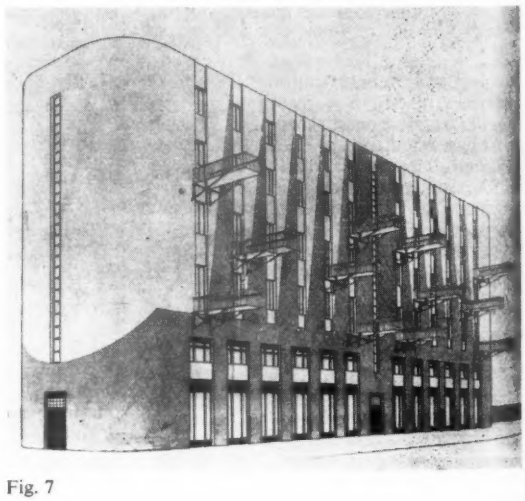


Fig. 7

Oh, how I envy those born a century from now, in my beautiful peninsula entirely vivified, galvanised, controlled by the new powers of electricity. This obsessive vision of the future drags at my spirit . . . the great grey sea, no longer enjoying the leisures and laziness of a courted harlot, grudging and faithless, appears to us finally tamed, busy and productive. The great grey sea, stupidly adored of poets, everywhere at work with its furious and diligent tempests . . . driving millions of dynamos in a thousand labouring gulfs and bays.

Through a network of metal cables the double power of Mediterranean and Adriatic ascends to the crests of the Apennines to concentrate in great cages of iron and crystal . . . enormous nerve centres in the mountainous spine of Italy. . . . Many millions of kilowatts are distributed broadcast in fertilising abundance, but governed by switches under the fingers of the engineers. Engineers who pass their days in high-tension chambers where 100,000 volts shimmer between great bays of glass, who sit before distribution panels with, to right and left of them, computers and switches, controls and commutators, and everywhere the rich glitter of shining handles. These men enjoy, in short, a life of dominance between walls of crystal and iron. They have furniture of steel, twenty times lighter and cheaper than ours . . . can write in books of nickel no more than three centimetres thick, but with no less than a hundred thousand pages.

Heat, humidity and ventilation regulated by a brief pass of the hand, they feel at last the fullness and tough solidity of their wills . . .[11]

In passages such as this, from his book *Le Futurisme* (1912), Marinetti exhibits not only what I would call mechanical sensibility, but also what he would call the gift of mechanical prophecy. Not only does he exhibit a feeling for the splendours of technology that is beyond the emotional range of most literary men, and an ability to talk about those splendours that is beyond the literary range of most technologists, but in his intuitive guessing ahead he achieves a remarkable number of direct hits. The broadcast distribution of power remains a mirage, but his power-station interiors are very lifelike; though tidal power is still hardly harnessed, steel furniture is very much with us; and although some of his own attempts to realise these prophecies were ludicrous, as in the case of the comic tin books that were run up for him in the 'twenties, the electronics industry has, in the last couple of years, fulfilled his prophecy in overplus with its thin-lamina information stacks, that can bank up six-million-odd units of information on their metal pages.

When one adds to these qualities in Marinetti's writings the fact that he took good care that these writings, and the rest of Futurism's copious pre-war output, were known and discussed all over Europe, from Barcelona to Moscow by way of Paris, London, Berlin, Vienna and anywhere else he could find an art-gallery or an audience, it is hardly surprising that Futurist ideas were the common currency of architectural and artistic thought in the post-war years when many creative artists, and notably architects, were trying to come to terms with just those problems of mechanism and technology that Marinetti had 'regulated with a brief pass of the hand'. As soon as one knows what one is looking for in the 'twenties, the endemic nature of Futurism is at once apparent. The only reason why there could ever have been any doubt as to whether or not Futurism was an important influence on Modern Architecture was simply that no art-historian of standing has got to work on the subject yet. All that the big histories have done so far—and it is a lot, in all conscience—is to sort out the 19th-century influence on Modern Architecture. The rest remains to be done.

I think it is true to say that wherever the artists and architects of the 'twenties went outside the traditional disciplines of their arts, they went with, or parallel to, the Futurists. The Dadaists acquired their techniques of public insult from the Futurists, the Surrealists moved into politics after the Futurists, the abstract aesthetics of the Dutch and Russian schools were developments out of Futurist attitudes (to varying degrees) and the 'Machine Aesthetic', the characteristic formal discipline of the period owed its power, indeed its very existence, to the ringing echoes of pre-war Futurist lyricism. But above all, the architects of the 'twenties acquired from the Futurists, and then passed on to the Modern Movement in general, the habit of thinking about city planning in three dimensions instead of two; of thinking in terms of circulation, not vistas; of thinking about close-textured mechanical urban scenery as something to be sought and cultivated, not shunned and destroyed. The last great urban vision of the pre-Futurist epoch, Tony Garnier's *Cité Industrielle*, has a vast empty wind-swept heart, like an English New Town, and a road system that guarantees chaos at every rush-hour—because it is a two-dimensional paper plan. The characteristic post-war urban visions, whether realised or not, are thick on the ground, high-density, high-rise, with multi-decked circulation—and after ten years in our own post-war wilderness of twelve-to-the-acre supersprawl, they begin to take on the gilded glow of monuments to a golden dream, as we look back, only to find them standing up in front of us again as we turn to look forward once more. For the Futurist City is back on many drawing boards, begins to be realised here and there, and I would like to conclude this paper by dwelling for a moment on the history and nature of this golden dream.

Although Sant'Elia crystallised the dream in graphic form, its origins go back to the beginnings of the movement, to 1909, when Paolo Buzzi addressed to Boccioni a poem beginning

Erige les construction massives pour la ville future
Qu'elle s'élève dans le ciel libre des aviateurs[12]

which already adumbrates a tower city, as you see. Boccioni himself might have been one of the great poets of 20th-century urbanism, a poet of cities of machinery, of transportation, of lights, of

Giant yellow bill-boards with the black shoe that covers a whole façade; some purely functional construction in iron: the toys; the dances, the ingenuous, disturbing and exalting rhythm of street-songs and café-chantant; the iron-bound rhythm of the factories.[13]

and Marinetti gave, almost as an *obiter dicta*, another 'brief pass of the hand', the building programme for a city on this scale, a city of this social and economic nature.

. . . the right to strike, equality before the law, the authority of numbers and the assumption of power by the masses, the speed of international communications, the habit of hygiene and comfort; all these require us to build large, well-ventilated working-class apartment-blocks, railways of absolute reliability . . . hillside villas intelligently oriented for view and breeze, vast meeting halls, perfected toilet installations . . .[14]

The apartment blocks were Mario Chiattone's speciality, the rest was for Sant'Elia to realise, with strokes of genius and gleaning every benefit of science and technique, summed up in his dazzling vision of *La Città Nuova*. You will find it written, in various places, that Sant'Elia's debt is not to Futurism but to Leonardo da Vinci, basing this assertion on a well-known Vincian drawing of a two-level town. But all Leonardo has done is to extend the snobbish distinction between basement and *piano nobile* out into the street, in order to save the Milanese gentry from dirtying their clothes by contact with the lower orders. Sant'Elia's seven-level circulation differs from this by more than a ratio of two to seven; it is a genuinely revolutionary concept, and was accepted as such by all those who resumed the theme in the 'twenties.

The only architect who has been publicly noticed as resuming the theme is Mart Stam, whose designs for multi-level city centres were compared favourably to Sant'Elia's by Professor Giedion some twenty years ago. But in the same years that Stam was designing these interesting schemes (1922–4), Le Corbusier was using the word *Futuriste* as an epithet for city centres; once to describe Auguste Perret's grotesque attempt to dress up Sant'Elia's ideas in 'classically solemn architecture', an aberration of a great mind now happily forgotten; and again to mock his own enthusiasms[15] when describing his own plan for 'A Contemporary City of Three Million Inhabitants'. In his own case the epithet is more than just; the central area of his city is the true heir of *La Città Nuova*, with its towers rising from a basement of seven superimposed circulation decks. Even the suicidal but enterprising idea of an aircraft landing-strip between the towers[16] had been anticipated in Sant'Elia's sketches, one of which is inscribed *Stazione Aeroplani*.

The general impact of Futurist conceptions on this generation was powerfully

[11] *Le Futurisme*, p. 123.

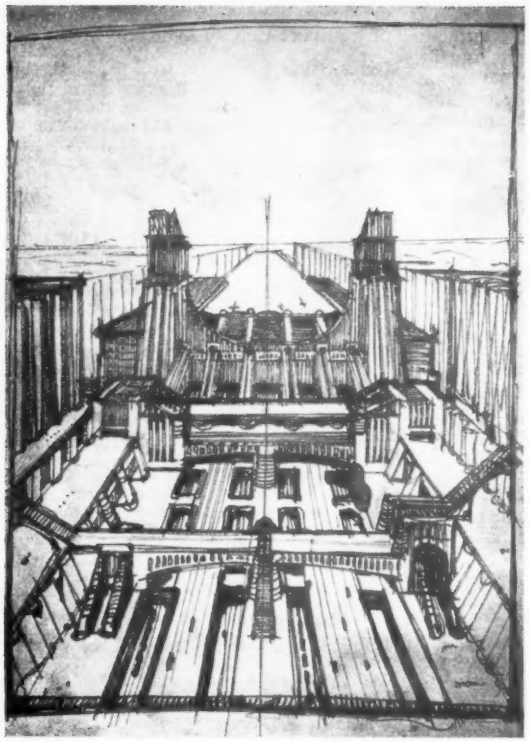
[12] *A Umberto Boccioni*, from *Les Médaillons*.

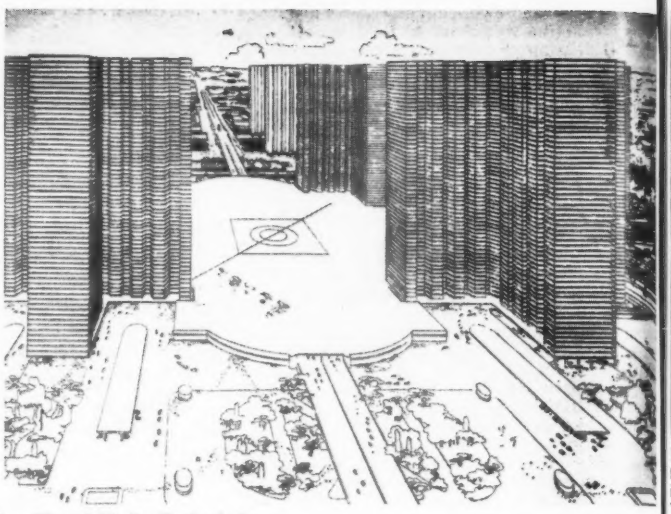
[13] *Pittura Scultura Futurista*.

[14] *Le Futurisme*, p. 112.

[15] *cf. The City of Tomorrow* (Urbanisme). London, 1928, p. 203.

[16] *Ibid.*, p. 202.





Figs. 10 and 11. Le Corbusier's early city-planning schemes are closely comparable to Sant' Elia's. His *City for Three-Million Inhabitants*, of 1923, has seven circulation levels concealed at the foot of its tower-blocks, while the idea of an airfield among the buildings, 11, had been directly anticipated, 10, by Sant'Elia's *Stazione Aeroplani* drawing of 1913.

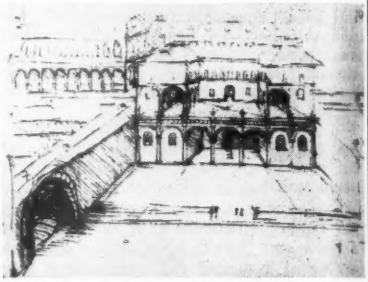


Fig. 8. Some Italian critics and historians have referred the source of Sant'Elia's ideas on multi-level planning to Leonardo da Vinci, but Leonardo's projects, 8, are understandably tentative and rudimentary by comparison, and were more likely to have been provoked by ideas of social status that traffic needs

reinforced by two completed buildings that attracted widespread attention, and were reprinted in nearly every architectural book and magazine of consequence; these were the Fiat factory in Turin, designed by the engineer Giaccomo Mattè-Trucco, whose poetical and semi-practical flourish of a race-track on the roof showed industry nearly keeping pace with Futurist fantasy, and the great administration centre of Kharkov (U.S.S.R.) by Serafimov and Kravetz, with its towers and bridges, that was the nearest to an actual realisation of *La Città Nuova* that the world has seen so far.

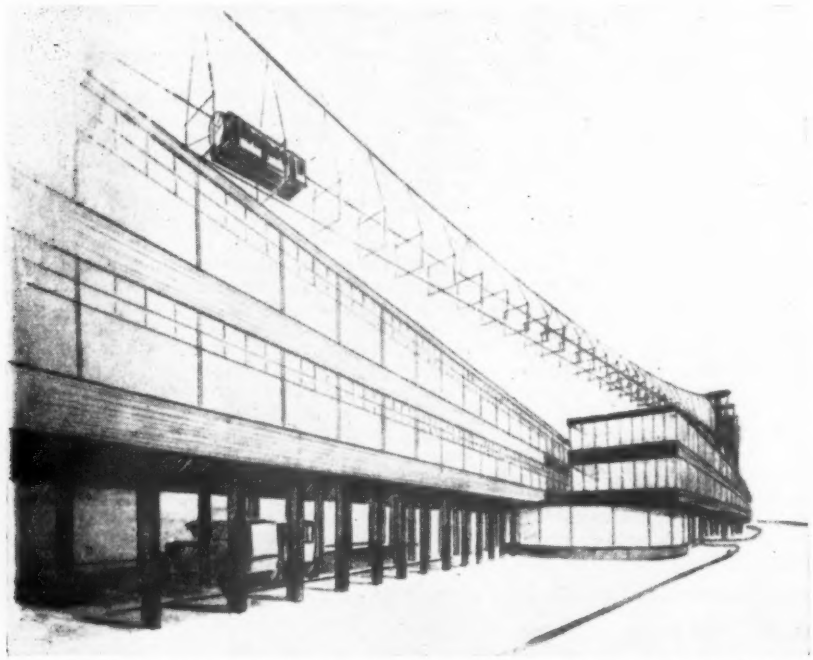


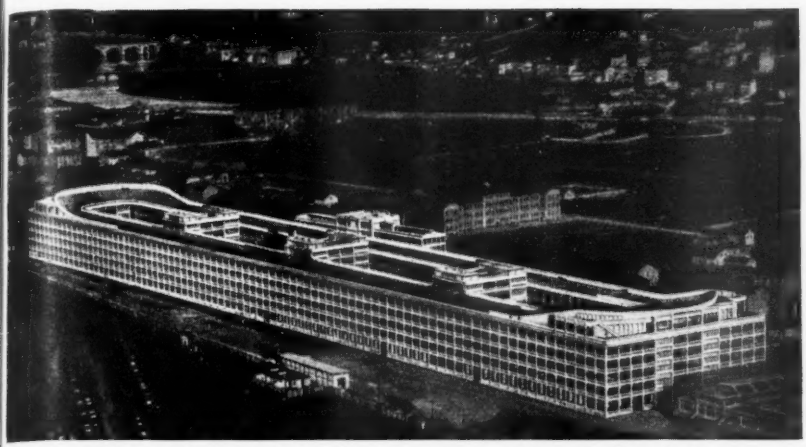
Fig. 9. One of the first architects to return to the Futurist multi-level theme after the first war, was Mart Stam. His designs for the replanning of the Rokin area of Amsterdam, 9, has to invert the Sant'Elia formula, and put railways at the top, since the high water-table made tunnelling unthinkable.

But in the meantime the Futurist City had got into the hands of the popular press as well; there were traces of it at Wembley and all the major American Centennials and Commemoratives. I will restrict myself to two examples from the 'thirties: in 1934, Lord Castlerosse, canvassed by the ARCHITECTURAL REVIEW on his response to modern architecture, was quoted as wanting to see fifteen-storey buildings in London, and went on to enquire

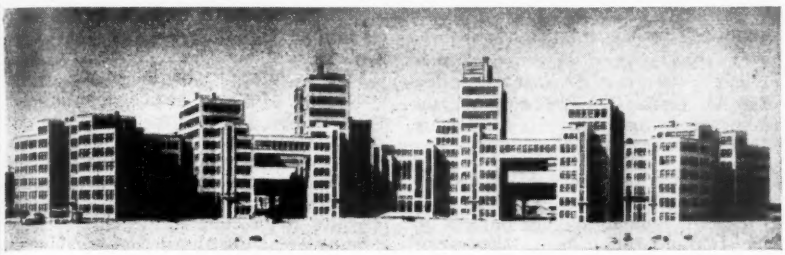
> Why not erect, say, at places like Sunningdale, blocks of flats with their own stations underneath? People could then get straight into a train, eat their breakfasts and read their papers on the way to work. Coming back they could have their games of bridge in peace, right to their own doors.[17]

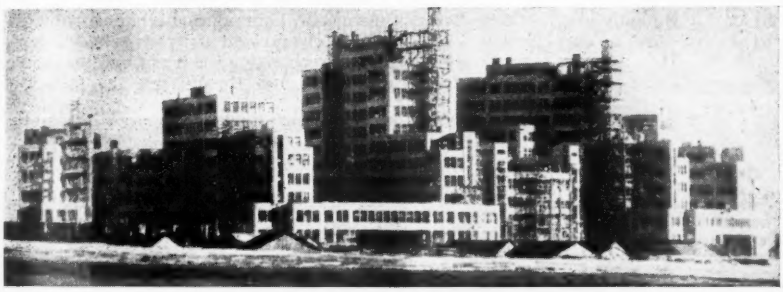
There spoke the true voice of Futurism, albeit muffled in the plywood phraseology

[17] ARCHITECTURAL REVIEW, Vol. 75, 1934, p. 188.



Figs. 12 and 13. Though no Futurist buildings of any consequence were built while the movement flourished, there appeared in the 1920's two large schemes which incorporated Futurist features in a compelling manner. This may have been coincidental in the case of the Fiat factory near Turin, 12, with its race-track on the roof, but seems to be entirely deliberate in the case of the State Industry Centre at Kharkov, U.S.S.R., 13, by Serafimov and Kravetz.





of the 'thirties. It reappears again, but this time with the true voice of mechanical prophecy, the 'flair for metals', in Walter Dorwin Teague's City of Tomorrow, designed for U.S. Steel in 1938, complete with all the towers and multi-level circulation systems of the Sant'Elian original.

But here, in terms of both structure and circulation, there is a new sophistication, a new air of immediacy. It is not only that by the mid-'thirties the really advanced designers were beginning to fight their way out of the strait-jacket of the International Style and the Machine Aesthetic, but that the facts of life were becoming more Futurist every day, particularly in the automobile metropolises of the U.S.A. And what was beginning to hurt the United States twenty years ago begins to hurt us now, the problems of designing cities fit for motorised men to live in is now world-wide, the problem of achieving satisfactory circulation, without blitzing our city centres into uninhabitable tarmac deserts, is now everybody's.

Hence the clearly Futurist aspect—quite uncontrived, I believe—of the central-area project by C. A. St. J. Wilson and Peter Carter, that appeared in the ARCHITECTS' JOURNAL's recent study of heliports, not to mention the Barbican, Soho and Paddington plans, and the rather more deliberate—but not, I think, consciously Sant'Elian—Futurist aspect of a recent Harvard post-graduate student scheme for Times Square, New York, where not only has provision for advertising been made on a scale that would have delighted Boccioni, but the through traffic of Broadway has been pulled up from a level below that of the main piazza to sweep over the cross streets and plunge back into the bowels of New York in a way that makes the beauty of speed a part of the greatest free show on earth, and surely deserves the electronic accolade of the Society of Friends of Marinetti.

Futurism, then, is not only part of the ideology of Modern Architecture, it is also part of our pleasure in using and observing the modern urban scene. It has also coloured our view of the origins of the Modern Movement, for what is this if it is not Futurist?

> The glass wall is now clear and without mystery, the steel frame is hard, its expression regardless of other worldly speculation. It is the creative energy of this world in which we live and work and which we want to master, a world of science and technique, of speed and danger

the accent is unmistakable—'glass, steel, energy . . . this world . . . of science and technique, of speed and danger'

> of hard struggles and no personal security, that is glorified in Gropius's architecture.

The accent is unmistakable, but the voice is not Marinetti's, not Boccioni's, nor even Ugo Nebbia's. It is Professor Pevsner winding up the last chapter of *Pioneers of the Modern Movement*, which, though it can find only footnote-room for Futurism as such, is nevertheless sparked and spirited throughout by the Futurist inspiration that has bitten deep into the subconscious of Modern Architecture.

DISCUSSION

Mr. John Summerson, C.B.E., B.A.(Arch.), F.S.A.[*A*], moving a vote of thanks to Mr. Reyner Banham, said:—

Since I read a draft of Mr. Banham's paper a few days ago I have been trying to

Fig. 14. By the end of the 1920's, Futurist ideas had percolated so deeply into the popular imagination that any other type of 'City of Tomorrow' was out of the question; Walter Dorwin Teague's diorama at the New York World's Fair of 1939 returned close to a Sant'Elian conception of the urban scene, 14.

remember when the word 'Futurist' first became known to me. I do not think I am deceiving myself or you when I say that it had already arrived in English prep. school circles by 1914. Considering that the Foundation Manifesto of Marinetti only dates from 1909, it seems to have travelled pretty fast. There were, as I remember, two modern-art words which were known to schoolboys in those days; one was 'impressionistic', which meant something jolly clever but unfinished; the other was 'futuristic' which meant something all angles, and obviously mad. I doubt whether our experience of Futurism went much beyond that, though I suppose some of us had plunged gloriously into the Kingsway tram subway, at the Theobalds Road end, an adventure which always struck me as being mildly futuristic. Alas, that tunnel is now closed! I wonder what will happen to it: and I wonder if anybody will agree with me that it would make an ideal location for a museum of modern art.

Since those days, Futurism, as Mr. Banham has pointed out, has ramified in an extraordinary way, and I suppose there is a little bit of the Futurist in most of us. It is a movement which, I think, was never misunderstood, or anyway, not misunderstood in the way most of the other 'isms' have been. I am sure Giacomo Balla's famous time-picture of a little dog toddling along by his mistress is one which must have given entertainment to thousands to whom Post-Impressionism and Cubism have always remained closed books. Somehow, Futurism did go right to the heart of modern man. Among later repercussions, I recall that Fritz Lang's film *Metropolis* (1926) had a decidedly futuristic character. More recently, Sir Walter Citrine has shown himself something of a Futurist by calling the new power stations 'the cathedrals of the 20th century'. Finally, I see two magazines every week, probably known to Mr. Banham: one is called EAGLE and the other LION, and they deal with the space-ship world. From time to time I detect in their vivid illustrations vestigial memories of the Futurist movement.

It is very easy to become frivolous about Futurism, but what an important movement it was! Mr. Banham is to be congratulated on having at the same time examined this movement with academic precision and given us a paper brilliantly informative and entertaining. This kind of research is of very high importance. So far as architectural ideas go, we live today in a chaos of unverified quotations, distorted dogmas, misapplied slogans, and mere notions offered as principles. The whole atmosphere of architectural thought needs clearing, and it is the art historian's job to clear it. It is good to see a scholar of Mr. Banham's ability and sensibility putting his hand to the job.

Mr. President, I have very great pleasure in proposing the vote of thanks to Mr. Banham.

Mr. Ian M. Leslie, O.B.E. (Editor of THE BUILDER), seconding the vote of thanks to Mr. Banham said:

I am delighted to have been invited to second this vote of thanks. We journalists (for I pay Mr. Banham the compliment of ranking him as such) must take every opportunity of praising each other, for if we do not, it is highly likely—things being what they are—that no one else will.

I enjoyed Mr. Banham's paper enormously, once I had given up the puzzle of who really did write the *Messagio*—Sant'Elia, Marinetti, Cinti, Boccioni, Ugo Nebbia or (as I strongly suspect) Professor Pevsner in a previous incarnation.

Mr. Banham has rescued, and put into fine prose, what is I think a piece of architectural folk-lore. I hope I am right in thinking that, because I should be worried if I felt that, instead of taking a long look down the sidelines of history, he was advocating or restating a thesis for contemporary architecture.

I must confess I felt something like a chill ghostlike hand on my spine when I heard such phrases as those he evoked from the past—'The new architecture is the architecture of cold calculation'; 'We must find our inspiration in the new mechanical world we have created'; and, worst of all, 'A racing car . . . is more beautiful than the Winged Victory of Samothrace'.

Such things ring a doleful bell in my architectural subconscious; the phrase 'The house is a machine for living' is so palpably false that I have wondered how we all swallowed it so readily. I hope Mr. Banham's paper will not result in its being regurgitated into the present age. May I say why?

This architecture of the machine for which the *Messagio* pleads contains one great fallacy; it is an architecture intended for space-men rather than human beings. It seeks its inspiration in the material achievements of men rather than in the ministering to the spirit of man, and so relegates architecture to the state of being a branch of industrial design—a thing as transient and ephemeral as Marinetti's racing car. Economics, perhaps fortunately, effectively prevent us from rebuilding our cities or changing them as rapidly as we do our cars, and therein lies the fallacy of

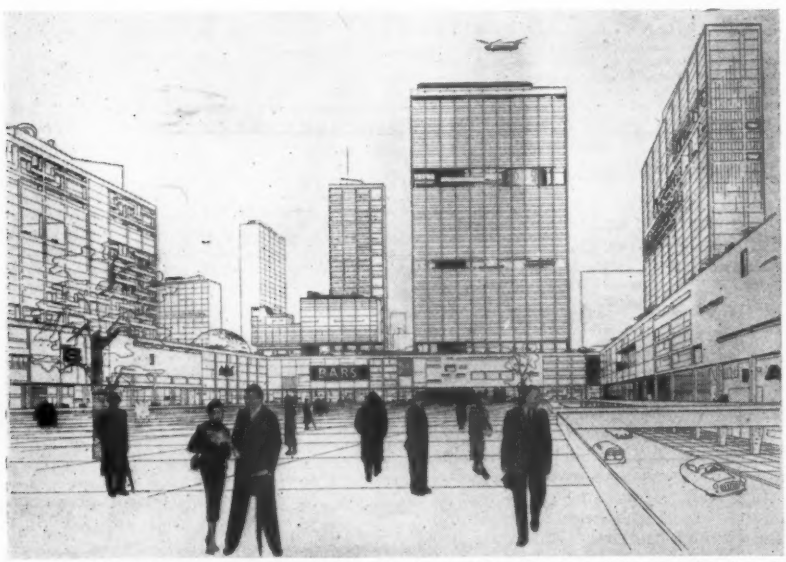


Fig. 15 and 16. The growing pressure of traffic, the need to disentagle it from pedestrian circulation, the desire to accentuate the visual character of a mechanised urban landscape, and a growing pleasure in the world of lights, entertainment and advertising, have all combined in recent years to turn the thoughts of town-planners in a Futurist direction, if not to turn them back to a Futurist inspiration. Nevertheless there is a clear community of aim between Sant'Elia in 1913, and Carter and Wilson, 15, in their studies of central area development, and the team of Harvard graduate students who conceived the replanning of Times Square shown in 16.

comparing building with the aeroplane, and of seeking architectural inspiration (as the *Messagio* recommends) in the mechanical world we have created.

It is this transient quality of the modern world that makes it so necessary to move a little more slowly than the Futurists would have us do. Man changes his trappings constantly, but he himself changes hardly at all. At one end of the line is the Venus de Milo and at the other Miss Monroe, and the 2,000 shimmering years between them go like a flash, as a moment in time.

Nevertheless, we can be certain that the Futurist school of thought in pre-1914 Italy which Mr. Banham has so skilfully run to earth, storeys deep under the Turin roadways, did play a vital part in stirring fresh ideas, violent and shock-full though they were, into the turgid pot of the then current architectural thought. It cannot be coincidental that Italy today seems to be so far in the lead in design of so many things, from power stations to women's clothes. That is not just a coincidence. But I do feel that one earthquake is enough for any generation, or in any century. The dust is clearing; for goodness' sake, let us start to build.

I have very much pleasure in seconding the vote of thanks to Mr. Banham for his delightfully spoken and thoughtfully composed paper.

Mr. P. Smithson [*A*]: I feel it is slightly like a dream to hear Mr. Banham lecturing at the R.I.B.A., and myself speaking at the R.I.B.A.—rather like finding Jelly-Roll Morton in the Library of Congress. If it is not a dream, if it is real, perhaps it indicates the new situation. If modern architecture can be discussed at the R.I.B.A., then architecture in England might at least get off the ground.

1956 seems to have been a very significant year. At a MARS Group meeting I heard it said that it was not worth having a MARS Group exhibition, because it would approximate to an exhibition of architecture held at the R.I.B.A.

Where has modern architecture gone to?

C.I.A.M., perhaps an academic movement, starting so late in the 'twenties, but nevertheless a vital movement in the history of modern architecture, collapsed in 1956. A new structure to meet the new situation is at present being created. And there is talk too of the MARS Group similarly collapsing.

This belated, symbolic self-destruction of the modern movement creates an entirely new situation, and this talk on Futurism should be one of many to be given here and in the schools of architecture throughout the country, which by focusing on the architecture of the immediate past will give a possibility for focusing on the problem of style as of now.

Style is a problem that I think has been completely neglected since the days of William Morris. Certainly for seventy or a hundred years the problem of educating architects so that style was a serious consideration for them has been unknown. If this talk *is* the first of a series of serious investigations into the architecture of the immediate past, we should be able to sort out precisely the actual architecture that resulted from the Edwardian revolution: the revolution of the machine, the machine as a personal thing, the machine entering our lives as a possible source of poetry.

The machine aesthetic manifested itself in many ways—in many styles. Futurism was first in the field but there is no actual Futurist architecture. The means by which the spirit of Futurism was realised was invented by others. In the key year of 1913 there were the beginnings of four distinct architectural styles; Constructivism, de Stijl, Purism, and Bauhaus. Each of these movements had an attitude and a complete, comprehensive, plastic system, that is what used to be known as a style. The schools and institutes, the academies of today, do not teach style. They make no approach to the problem of architecture; they make an approach to technology, to technique, but the central problem of creating an actual architecture they ignore.

This escape from style is reflected, quite naturally, in the buildings that are going up around us. It would be wrong to say that the builders are using the language of building badly, because they have not realised that there is such a thing as a language of building. They do not know the words from which to construct the sentences. In my opinion, an architecture which is incoherent is useless to society.

In conclusion, it is obvious that the academies, as they stand now, far from being done away with, as Marinetti would have done away with them, should revive their old function. The schools and institutes should attempt to focus their students with the same energy on the plastic systems, particularly the plastic systems we have inherited from the immediate past, as they do on technique.

Now we may say such a statement in favour of academies conflicts with my personal opinions, which have been all my life long directed against academic architecture. But it is impossible to construct a meaningful dynamic between a new system and a muddle. If people were aware of what they were doing and why they were doing it, it might be possible for them to comprehend the antithesis, the new system. One finds more and more that one is talking in a stylistic void. Such a stylistic void makes any teaching, any writing, any talking, almost a waste of time.

Mr. Ian McCallum [*A*]: Mr. Reyner Banham gave us some evidence of the originality of Sant'Elia in his plastic approach to the future city, but I could not see, in the drawings we were shown, any definite evidence of his planning abilities.

It was mentioned in connection with the Walter Dorwin Teague scheme for the New York World Fair that there was evidence that he had investigated the circulation problems of the city.

Is there any evidence that Sant'Elia himself worked out the circulation problems consequent upon his kind of proposals for The City of the Future?

Miss Isabel A. Bold [*A*]: Futurism appears to have proved prophetic by the events of the last forty years. With the increasing dominance of machines in the lives of all of us, it may be in a hundred years we shall see some of the things these drawings prophesy.

Mr G. B. Oddie [*A*]: I am not an art historian: my friend Smithson has dubbed me a 'technocrat'. The thing that strikes me most of the Revelation of St. John Bernasconi and his Futurist Manifesto is, how extraordinarily old-fashioned it seems. It sounds so much to me, at any rate—and I repeat, I am not an art historian—like the last flame of 18th-century optimism.

The other thing that strikes me about those chaps is, how very little they really knew intimately about the technological world of which they were on the threshold. They were very much Futurists, because they were looking into the future, of which they had only the very haziest glimpse. They developed that hazy glimpse into a much rosier definition than it has since proved to deserve.

I am quite certain if Marinetti or Sant'Elia or any of the Futurist confederates had been faced in their maturity with the amount of technical problems which, admittedly, are baffling many people today, they would have been equally baffled. They are in the position of poets, who are the unacknowledged legislators of the world. Although poets feel that they rule, it comes to the legal draftsmen to have the dismal business of drafting the Acts of Parliament. Too many architects today are in the position of legal draftsmen, and Mr. Banham has done a very great service in drawing our attention to this original 30- or 40-year-old Manifesto, and it would refresh us all to read it again when it is published in the R.I.B.A. JOURNAL and look at the technology with which the art historians are trying to cope.

Mr. Reyner Banham, replying, said: In reply to the question raised by Mr. Ian McCallum, the evidence of Sant'Elia's planning abilities has, I suspect, simply been lost in the inevitable attrition of time.

In the recent investigations and discussions on Sant'Elia and his architecture in Italy, it transpired that out of a total of nearly 160 drawings of Sant'Elia's that came to light, only 6 plans have emerged. It is quite conceivable however that they have simply been lost, because the drawings have passed through many hands between their execution and coming to rest in public and private collections in Italy.

One must say, in all fairness, that the surviving plans—plans for individual buildings—are competent but dull.

As to the nature of the circulation in the *Città Nuova*, it is difficult to work anything out. Like so much other futurist work, it was intuitive guessing, though the circulation through and round the Central Station project appears to be practical and straightforward.

I would like to thank Mr. Summerson and Mr. Leslie very much for their remarks, which went off in opposite directions.

One speaker in the discussion, Mr. Oddie, talked of its being old-fashioned; another speaker said it was prophetic. I can only remind you that nothing is as old-fashioned as an old prophecy. There is a point here; you have to compare the Futurist quality against the quality of other prophets in the decades immediately preceding and immediately following. There you do see a difference. Although the Futurist acquaintance with the world of technology was very much that of the user for pleasure, they had in those heroic days of motoring to take a certain practical interest in the way a thing worked. It is evident from Marinetti's writing that he knew what made the wheels go round in the large cars he possessed in such rapid succession, in which he rushed round the roads of Rome and Milan. One day in Rome he referred to the fact that the Colosseum unfairly threw down a brick and he ran over it and cracked his radiator.

If you compare the actual quality of Futurist writing with his contemporaries, the most obvious thing to compare it with is H. G. Wells's direct physical knowledge of the facts of technology. Wells on aviation is vague in the extreme; Marinetti on motoring is precise and to the point.

Between these two must lie the difference of the fact that for Marinetti the future was a promise, the short-range future was a promising one. For Wells, the future was unmistakably hostile to the individual.

I have been re-reading Wells's *The Sleeper Awakes*, because it relates to the *Città Nuova*. Wells's city, multi-level, with tower blocks like Sant'Elia's, is a hostile environment, in spite of some abstract practical things like television; whereas Sant'Elia's, and the Futurist's, environment is one they look forward to with enthusiasm. Maybe that was because they were Italians, maybe because they were naïve, perhaps Edwardian. It does suggest they knew as much and probably more than most of their literary contemporaries about what they were talking about. And put Marinetti against the background of men like Maeterlinck or Kipling, who knew a bit about motor cars, and you will see that he knew more, was more inside the situation.

Finally I would like to say one thing about what has been called 'architectural folklore' and 'unsorted ideas'. As was pointed out in the editorial pages of a paper with which I am not connected, the certainties of the 'thirties have run dry; they are no longer valid and alive.

There is a mess, as far as architectural theories are concerned, which we have to dig out, not by sitting around and drinking toasts to Bramante or talking of Vittore or Turinese baroque; we must sort out the folklore, these unsorted ideas, and half-quoted slogans, and find out the context in which, and where, they were first delivered, assuming we are in a polemic situation where people say things they do not mean. We shall, I think, on re-examination, find it is equally true of the great generation of masters of the modern movement, and that many of these over-popular slogans, like 'The house is a machine for living' (Le Corbusier) or 'a sovereign federative union of all the arts' (Gropius), were uttered in heated arguments, and do not represent what their authors meant at the time.

APPENDIX

Note: *In spite of the doubts expressed about the authorship of the Manifesto of Futurist Architecture, the Manifesto remains the document by which Sant'Elia's ideas on architecture became known to the world, and to the first historians of the Modern Movement, and its text is therefore given below* (*trs.* R. B.).

MANIFESTO OF FUTURIST ARCHITECTURE

SINCE THE 18TH CENTURY there has been no architecture at all. A bewildered mix-up of the most various elements of style, used to mask the skeleton of modern buildings, is called modern architecture. The new beauty of cement and steel is being profaned by the superimposition of carnival-style decorative incrustations that are justified neither by an antiquity of constructive method nor by our own taste, and draw their origins from ancient Egypt, India and Byzantium, or from that amazing flowering of idiocy and impotence that bears the name of neo-classicism.

In Italy these architectonic pimpings are welcomed, and greedy incapacity from abroad is mistaken for inventive genius, for the newest architecture. Young Italian architects (those who attain originality through the secret compulsion of works of art) flaunt their talents in the new quarters of our cities, where a smiling salad of ogival colonnets, seicento foliation, gothic arches, Egyptian pilasters, rococo volutes, quattrocento putti, bulging caryatids, all hold place in turn as style and aspire presumptuously to monumentality. The kaleidoscopic coming and going of forms, the multiplication of machines, the daily increase of needs imposed by rapid communications, human agglomeration, hygiene and a hundred other phenomena of modern life cause no perplexity to these self-styled renovators of the art of architecture. They continue unperturbed, with their rules from Vitruvius, Vignola, Sansovino, and little publications on architecture in their hands, to reprint the image of centuries of imbecility on our cities, that should have been the immediate and faithful projection of ourselves.

Thus this art of expression and synthesis has become in their hands a vacuous stylistic exercise, a stirring-about of half-baked formulae to camouflage modern buildings in the routine passéist stupidities of brick and stone. As if we, accumulators and generators of movement, with our mechanical aids and extensions, the noise and speed of our lives, could live in those same streets that were designed for their own needs by men of four, five or six centuries ago.

This is the supreme imbecility of modern architecture, that is repeated with the mercantile complicity of the academies, where intelligence is under house arrest and students are compelled to onanistic re-copying of classical models, instead of extending their minds to research into ultimates and the solution of the new and exacting problem of *the Futurist house and city*. The house and city that are materially and spiritually our own, where our tumultuous existence can develop without appearing a grotesque anachronism.

The problem of Futurist architecture is not a problem of rearranging lines. It is not a question of finding new mouldings, new architraves for doors and windows, of replacing columns, pilasters, consoles with caryatids, hornets, frogs. It is not a question of leaving a façade in bare brick, or covering it with plaster or stone, nor of fixing on formalistic differences between new buildings and old, but to create the Futurist house on sane plans, to build with every resource of science and technique, settling nobly every need of our habits and our spirits, rejecting whatever is grotesque, heavy and anti-aesthetic for us (tradition, style, aesthetics, proportion), fixing new forms, new lines, a new harmony of profile and volume, an architecture that would have the roots of its being only in the special conditions of modern life and its projection as aesthetic value in our sensibility. This architecture cannot be subject to any law of historical continuity. It must be as new as our new states of mind.

The art of building has been able to evolve in time, and pass from one style to another while maintaining unaltered the general character of architecture because though there have been frequent changes of fashion, as well as those brought on by the victories of religious faiths and political orders, there have been few brought on by profound changes in our conditions of life, that discard or overhaul the old ones, as have the discovery of natural laws, the perfection of technical methods, the rational and scientific use of materials.

In modern life the process of consequential stylistic development comes to a halt. Architecture is tired of tradition. It begins again, forcibly, from the beginning.

Calculation of the resistance of materials, the use of reinforced concrete and iron exclude *architecture* understood in the classical and traditional sense. Modern structural materials and our scientific ideas absolutely do not lend themselves to the disciplines of the historical styles, and are the principal cause of the grotesque aspect of modish buildings where we see the lightness and superb slenderness of the girder, the fragility of reinforced concrete, used to attain the heavy curve of an arch, the stolid aspect of marble.

The formidable antithesis between the modern world and the ancient is determined by everything that was not there to begin with. Into our lives have entered elements whose very possibility the ancients could not have suspected: material contingencies have crystallised, and spiritual attitudes have arisen with thousandfold repercussions; first of all, the formation of a new ideal of beauty, still obscure and embryonic, whose fascination is already sensed by the masses. We have lost the sense of the monumental, the heavy, the static, and enriched our sensibilities with a taste for the light, the practical, the ephemeral and the rapid. We feel that we are no longer the men of the cathedrals and the moot-halls, but of the Grand Hotels, railway stations, immense roads, colossal harbours, covered markets, glittering arcades, reconstructions and salutary slum-clearances.

We must invent and remake the Futurist city like an immense and tumultuous shipyard, active, mobile and everywhere dynamic, and the Futurist house like a giant machine. The lifts must no longer hide away like solitary worms in the stairwells, but the stairs—now useless—must be abolished, and the lifts must swarm up the façades like serpents of glass and iron. The house of cement, glass and iron without painted or carved ornament, rich only in the inherent beauty of its lines and modelling, extraordinarily brutish in its mechanical simplicity, high and wide as zoning laws permit, must rise from the brink of a tumultuous abyss, the street, which will no longer stretch out like a doormat at the level of the thresholds, but will plunge storeys deep into the earth, gathering up the traffic of the metropolis and connected for necessary transfers to metal catwalks and high-speed coveyor belts.

We must abolish the monumental. We must

resolve the problem of Futurist architecture without cribbing from photographs of China, Persia and Japan, without stultifying ourselves with Vitruvian rules, but with strokes of genius and equipped with scientific and technical experience. Everything must be revolutionised. We must exploit the roofs and put the basements to work, transfer questions of good taste out of the field of petty mouldings, potty capitals and piddling porticoes, into the vaster field of the grouping of masses on the grandest scale. An end to funereal commemorative monumental architecture. Let us blow sky-high those monuments and monumental pavements, and flights of steps, excavate the piazzas and raise the level of the city.

I COMBAT AND DESPISE

(1) All avant-garde pseudo-architecture from Austria, Hungary, Germany, America.
(2) All classically solemn architecture, hieratic, theatrical, decorative, monumental, graceful and pleasing.
(3) Preservation, reconstruction and reproduction of ancient monuments and palaces.
(4) Perpendicular and horizontal lines, cubic and pyramidal forms, static, grave, oppressive and absolutely foreign to our newest sensibilities.

AND I PROCLAIM

(1) That Futurist architecture is the architecture of calculation, of temerious boldness and simplicity; the architecture of reinforced concrete, iron, glass, cardboard, textile fibres and all those replacements for wood, stone and brick that make for the attainment of maximum elasticity and lightness.
(2) That architecture is not, for all that, an arid combination of practicality and utility but remains an art, that is, synthesis and expression.
(3) That oblique and elliptical lines are dynamic by their very nature, have an emotive power a thousand times greater than that of perpendiculars and horizontals, and that there can be no dynamically integral architecture without them.
(4) That decoration as something superimposed on architecture is an absurdity, and that only from the use and original arrangement of raw, naked or violently coloured materials can depend the decorative value of Futurist architecture.
(5) That just as the ancients drew their inspiration in art from the elements of the natural world, so we—materially and spiritually artificial—must find that inspiration in the elements of the new mechanical world we have created, of which architecture must be the fairest expression, the most complete synthesis, the most effective integration.
(6) That architecture as an art of disposing the forms of a building following pre-established laws is finished.
(7) That architecture must be understood as the power freely and boldly to harmonise environment and man, that is, to render the world of things a direct projection of the world of the spirit.
(8) That from an architecture so conceived no stock answers, plastic or linear, could arise, because the fundamental characteristics of Futurist architecture will be expendability and transience. Our houses will last less time than we do, every generation must make its own city. This constant renewal of the architectonic environment will contribute to the victory of Futurism, already asserting itself through *les mots en liberté*, plastic dynamism, music without bars, and the art of noise, and through which we fight without quarter against passéist cowardice.

Address to Students by the President

Mr. Kenneth M. B. Cross, M.A.

at the R.I.B.A. 5 February 1957

THIS IS AN OCCASION of very particular importance because it is dedicated to the younger members of the architectural profession and in their hands will rest the future of architecture in this country and I hope to some extent overseas as well. The principal business of this meeting is the Criticism of Drawings submitted for the various R.I.B.A. annual prizes, but it is customary for the President to open the proceedings with what is called 'An Address to Students.'

It is, I may say, fortunate that this event takes place early in the proceedings, for I recall an incident in the varied life of the late Lord Birkenhead who ultimately became Lord Chancellor of England. He had been invited to attend a meeting of a Council in the Midlands and to address the Council and members of the public. The Mayor got up to introduce their distinguished guest, but unfortunately he was terribly long-winded and his speech was interminable. Lord Birkenhead became visibly restive and when, at last, after some forty minutes the Mayor called upon him to give his address, His Lordship got up and said: 'My address is No. 19 Bruton Street, London, and I am going there now,' and he did.

I expect you mostly realise that our first examinations, which were voluntary, were held as long ago as 1863, and that in 1882 they became compulsory for the Associateship. In those far-off days the more fortunate students were apprenticed for six years to one of the 50 odd architects who were practising in London. Sir William Tite recorded that as a young man he was lucky to have escaped the usual custom of those days which would have sent him to work in a carpenter's shop for three of those six years. This was what was meant by practical experience in the early days of the R.I.B.A.

For the past few years the urgent need for more practical experience in offices and on buildings in course of erection has been claiming the attention of the R.I.B.A. Council, of the Board of Architectural Education and others concerned. It has been decided that at present one post-graduate year must be devoted to practical experience and that in 1962 and thereafter the period is to be extended to two years, one year of which must be post-graduate, that is, after the cadidate has passed the Final Examination or the equivalent. You will appreciate that you have escaped the three years in the carpenter's shop which so alarmed Sir William Tite.

The criticism which has been made by members of the profession itself is that students on leaving the architectural schools and becoming qualified are in some cases ignorant of the usual procedure in running an office, whether they seek to practise themselves or to become assistants. It has been stated that though they can make attractive sketch plans they are unable to prepare working drawings which would be readily intelligible to a general foreman, and that in many cases their knowledge of construction and materials is vague and is accompanied by an inability to write a specification of what they have drawn.

That, then, is the charge, and though opinions vary as to the extent to which the charge is justified, there is undoubtedly some degree of truth in it. Nevertheless, we must, I think, avoid over-simplification; an architect's training is unavoidably very complex because the architect is supposed to combine the qualities of the artist, the practical designer and planner, and the man of affairs. Vitruvius, in the days of Imperial Rome, went farther; in his opinion the architect's qualifications were as follows:

> 'Let him be educated, skilful with the pencil, instructed in geometry, know much history, have followed the philosophers with attention, understand music, have some knowledge of medicine, know the opinions of the jurists and be acquainted with astronomy and the theory of the heavens.'

In an architect's training today we must, if we can, achieve a balance between the visionary theorist and the practical man. It may be that the balance has become upset at the expense of the practical man. If this is so, how has it come about?

In the Middle Ages the work of an architect as a designer was probably carried out by the master mason fortified as he was by a thorough knowledge of his craft. In the time of the Renaissance in Italy the designers of buildings were known as architects, but they were also often painters or sculptors as well—Raphael, Michelangelo, Bernini. In England, Inigo Jones started his career as a joiner before he designed masques and stage settings for the Stuart Court and finally the buildings which made him famous. Sir Christopher Wren was a brilliant scientist and a member of the Royal Society before he became an architect, and St. Paul's Cathedral is probably the greatest triumph of the art or science of construction in the kingdom.

Though an Academy of Arts had been founded in Rome in the 16th century and an Academy of Architecture in France in the 17th century, there was no systematic teaching of architecture in this country until the middle of the 19th century. The training of architects was effected through the pupilage and assistant system and was

quite haphazard. Wren collected around him a group of younger men, some of whom became good architects, and most of our best buildings were designed by architects who had been trained in this way. This system prevailed broadly from the 17th century until the beginning of the 20th century; there were a few evening classes in the mid-19th century, and the success or failure of a student to enter a good office to a large extent determined his future career. By a good office I do not necessarily mean a large one, but one in which the principal had the capacity, the time and the inclination to teach his pupil. In due course the student would learn to make working drawings, write specifications, help with the supervision of buildings and become familiar with all the routine duties that an architect has to undertake. Here then was practical experience in full measure; what was wrong with this system resulting in its decline in popularity and virtual extinction? Apart from the number of cases in which the pupilage system was abused by less scrupulous principals the answer is, I think, to be found in one word—design. There was no scope in an architect's office for the pupil to try his hand at design on any large scale; this work was necessarily reserved for the principal. The pupil had no opportunity of exercising his imagination; he knew his building construction; he could make working drawings, he had learnt about building methods and procedure and contracts and clients and extras, but in the one capacity which was to place him, as it were, apart from other members of the community, he felt stifled, stunted, and frustrated, and he was in fact in danger of becoming an office 'hack.'

In the middle of the 19th century evening classes in architecture were started at King's College, at University College, and at the Architectural Association. This was the first step. In 1894 the first full-time day course was started in Liverpool. In 1902 the Architectural Association and the Liverpool School were recognised for exemption from the Intermediate Examination of the R.I.B.A. Since then architectural education has been revolutionised. The growth of the schools has been phenomenal and there are today 20 schools in the British Isles which are recognised for exemption from the R.I.B.A. Intermediate and Final Examinations and 14 schools overseas. There are six schools which are recognised for exemption from the R.I.B.A. Intermediate in the British Isles and two schools overseas, and there are 47 schools in which architecture is taught in the British Isles, ten of which have full-time courses for the R.I.B.A. external examinations.

When you consider the diversity of the schools, some of which were installed at universities, municipal schools of art and technology, polytechnics, and independent schools like the Architectural Association, you will appreciate that the policy of the Board is not to try to reduce the method of training to dull uniformity, but rather to ensure that the standards achieved by various methods shall be equivalent to those of our external examination. We regard the diversity of training methods as being of the greatest value to the profession.

I have touched upon the articled pupilage system which entails taking the R.I.B.A. examinations and the school system which provides exemption or partial exemption from these examinations. There is a third way of entering the profession. A boy on leaving school and showing a talent for drawing can sometimes get into an architect's office in a very junior capacity and by sheer hard work in the office and at evening classes he can in due course fit himself to take the R.I.B.A. examinations—but this way is both hard and slow.

Let us assume that you are equipped and ready to start on the wild adventure. You must decide upon your course of action; you may be temperamentally suited to official work in the offices of a public authority and may feel that after the long years of architectural training as well as National Service you wish to have all the assurance of security that an official architect's job has to offer. On the other hand, you may wish to get into a private office with a view to private practice on your own account later on. This course is far more hazardous, but for many it is worth while to take the risk. If you are doubtful about the prospects in this country, or dislike the income tax arrangements, there are, of course, opportunities for both official and private architects overseas in Canada, Australia, New Zealand and Africa. But conditions in these countries are different from those here; careful enquiries should be made before you go, and if you do you should be prepared to settle permanently overseas.

This together with the subject of qualifying examinations is one of the matters which I hope to discuss when I go on my trip with the Secretary next month—though we are not able to stop in Africa on this occasion.

Here in the British Isles we have probably just passed the crest of a great building boom which was the result of a large accumulation of work following about ten years of restrictions. In fact a year or so ago it might be said that the building trade was suffering from a mild attack of apoplexy; builders and subcontractors (and perhaps architects and quantity surveyors as well) had taken on more work than they could properly perform in the stipulated time. There were shortages of labour, skilled labour in particular, and certain materials in direct contrast to the state of affairs about five years previously. There is still a vast amount of building work to be done, but I think the Government realised that the pace had become rather too hot and in their efforts to check inflation they have reduced capital investment in building in certain directions by decree and also through the credit squeeze. How long this restrictive process will last and how far it will go are unknown.

I ventured to say at the beginning of my remarks that the future was in your hands; it was not meant to be the usual trite and trivial remark that is made at a school prize-giving. I believe in the future of this country; it is true that we have to feed 50 million people whereas at the time of the Battle of Blenheim, when we were masters of Europe, we were a small nation of 6 millions. It is true that apart from coal there is a lamentable shortage of raw materials. Nevertheless in politics, economics and finance, supported by the great Commonwealth overseas, we still have a leading part to play in world affairs.

And then in scientific matters there is radar and the splitting of the atom—to cancel out our deficiency in natural resources we have to use our brains.

In engineering of all kinds, in the construction of aeroplanes and jet propulsion and motor cars and shipbuilding we are pretty good.

In medicine we hold our own with continental nations and in surgery we are a match for everyone except perhaps the Americans in certain departments, and in the case of the Americans the past President of the Royal College of Surgeons has told me that they have the greatest admiration for our surgical instruments which are unrivalled.

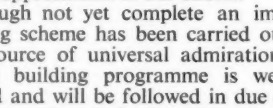
Finally, if you consider the arts, British sculpture is, I believe, held in high esteem for the first time for many years. I do not know what the world thinks about our painting, but if you have time take a look at the exhibition of British portraits at the Royal Academy. I do not think you will be disappointed.

And then, inevitably, we come to architecture. We are busily engaged in adapting ourselves to the new conditions in a fast-changing world. We may appear to be hesitant and cautious sometimes in absorbing new methods of construction, increased standardisation and new materials, nevertheless we are very much alive. We know that everything depends on our skill and on the public appreciation of our efforts.

Though not yet complete an immense housing scheme has been carried out and is a source of universal admiration. The school building programme is well advanced and will be followed in due course by great hospital development, more technical schools and atomic power stations. The amount of industrial building has been reduced during the past year but the figures are still substantial. This work is of the greatest importance economically in the increase of our manufactures.

Church building is proceeding on quite a large scale having regard to the funds available and it may well be that Coventry Cathedral will become a landmark in architectural development.

It is often said that it is better to travel hopefully than to arrive; I am not at all sure that that is a true saying but in all the circumstances I do not see why you should not do both.



Criticism of Work submitted for the R.I.B.A. Prizes and Studentships 1957

By Sir Hugh Casson, M.A.(Cantab.), R.D.I. [*F*]

Sir Hugh Casson: I need hardly say that it is a most pleasurable honour for me to be asked to be your critic this year, particularly because it is almost fifty years to a day that the task was undertaken by the father of our President. I need hardly say he made a pretty smart job of it, too, and was far more merciless than most of us could afford to be these days. Like many, I suspect, of those who have since followed him and preceded me in this ordeal, I could not resist looking up what my predecessors said to the prizewinners of their day, ten, twenty or fifty years ago, and much the same thing, of course, it proved to be from everybody. But there is one difference—the confidence with which they said it steadily decreased.

In 1906, for instance, John Simpson exercised some competent gamesmanship by starting with a quotation (in French) from Balzac and closing with one from Ben Jonson, and chucking in a few ploy words like Systyle Doric in the middle, which I personally never heard of. In 1936 I found a gruesome pleasure in reading the urbane Mr. Pakington reprimanding Hubert Bennett, the present Architect to the County of London, for having too ambitious a programme, while Arthur Ling (now of Coventry) was rebuked for taking too much trouble, they said, in drawing rubble infilling and omitting vital joints. Mr. Ling, said the critic, is clearly much more interested in drawing than in research. In 1947 Mr. Minoprio commended Bossom winner David Aberdeen for his thesis on —believe it or not—Paris Hotels—fatal moment for all those pre-T.U.C. days on the Left Bank with hot and cold running chambermaids. All critics, however, took care to point out that they were but the mouthpieces of the distinguished juries, and that while they were willing to take credit for the nicer and wittier remarks, those less pleasant or more clumsily phrased were, of course, the work of the jurors.

You will see, therefore, that there are two dangers that your critic faces upon these annual occasions—first of repeating what was said before, and secondly of usurping the privilege of the President by attempting to give another teaspoonful of advice to students after they have already been given their annual Presidential basinful. As to the first risk, which is repeating what has been said before, I might give you a deadly warning I have already received from my friend Ian Fleming who is a member of Kemsley Newspapers where he meets all sorts of people in the architectural profession. Now, every year they have a dinner at Kemsley Newspapers where the executives and juniors are all mixed up and you find yourself sitting next to people you do not normally work with. Ian Fleming found himself sitting next to a somewhat obscure character who tied up newspapers in the basement. We will call him Mr. Speacher. Being a forthright chap, he said, 'Now, Mr. Speacher, we have to spend the evening together. Let us find out what interests we each have. Do you play golf?' He replied, 'O, Mr. Fleming, you asked me that last year'. That, you see, is a deadly warning. Be very careful, because he may have said it last year.

The second temptation I find I cannot wholly resist, and I think I'd better get it over quickly. I hope, therefore, you will forgive me licking my lips slightly at the sight of this youthful and happily captive audience and suffer for a few minutes the penance of more advice from an old fuddy-duddy. (I pause here—clearly in vain—for cries of 'No, no', or 'Nonsense!')

Anyone concerned today with architectural education—whether at the giving or receiving end—is obviously dissatisfied with the state of affairs. I don't see how he could be anything but dissatisfied when we are all equally in doubt as to which way our professional paths will eventually lead.

You will hear it said that architects should be trained to join the building industry, to take part much more closely in developing building components and in site management; or alternatively that the architect should remain the creative man. If you are in that sort of indecision about where you are going you are going to train each other inadequately for either. And so we find quite rightly that the methods of architectural education are blasted with criticism from different sides. You may have read in a very provocative and lively article by Mr. Ritter in a recent issue of that very lively and provocative paper THE ARCHITECTS' JOURNAL that to impart knowledge is mistaken and to respect it is archaic. It sounds frightfully silly. I thought, 'Well, yes and no. Some students yes; some students no'. Clear thinking and enthusiasm are far better qualifications for teaching than practical experience. I should say no teacher is any good without enthusiasm. Whether clear thinking matters quite so much I am not sure. Practical experience I do find a lot of students would not mind having in their teachers.

You will hear the contrary view argued. 'Where', cry the critics, 'is the creative imagination of contemporary youth? Are we to be lashed for ever to the tails of the three great masters?' Or is it four? They are inclined to forget that architects, like anybody else, follow anything that moves. And if in this age of the walking dead (how lucky, someone remarked of our profession the other day, architects are, for even when they're dead it doesn't show) only three—or even twenty—artists are on the move, inevitably they will attract a following.

'Where', as the President hinted, cry the employing architects, 'is the young man who, while not devoid of the creative urge, can safely be trusted to draw a ½-in. detail of almost anything?' He never existed. Never! Never! And he never will, because there is no alternative as far as I can see whatsoever to personal and painful experience that takes years to acquire, and fortunately it is usually undertaken at someone else's expense. Practical experience, in fact, is something no school, no teacher and no system of education can ever impart.

Then you get the kind of students who go to men like your President and myself who say, 'Who are you to set yourselves up in judgment on the work of others?' 'Who', counter-cry the students and young men, 'are you anyway to set yourself up in judgment upon the work of others?' To this more personal and indeed more justifiable cry I can only answer that I am the unpaid hack (Randolph Churchill please note) of the R.I.B.A., and if I am to justify my impertinence in acting as critic I can only say that I am a teacher and as a teacher my aims—never achieved, I think—have been to stimulate curiosity. For the expansion of the human intellect depends almost entirely upon this quality first; secondly, on teaching the student, where one can, to recognise beauty (and thus to command happiness); and then—terribly important—to take pleasure in his work. Whenever I go to conferences of youth, students, I get a feeling very often of sadness. The cares of the world seem to lie too heavily on their shoulders and they do not seem to take what I would call pleasure in architecture. Thirdly, it depends on teaching the student that one should pursue one's own craft to the best of one's own talents and ability.

And for you, the student, it's the same old stuff, I fear. Do not look at your own buildings through other people's eyes. When you are designing a building do not, for goodness' sake, say what would so-and-so think if I had it published, or what would it look like published? Look at it as you see it yourself. You have to beware of secondhand opinions and secondhand visual experience; to avoid the pursuit of novelty for its own sake; to respect but not be mastered by fashion; to discuss architecture always, but to avoid arguing about *words* which are often nothing but traps; to respect the scholar but to beware of the style-snob (style, remember Perret said, is a word without a plural); finally, to respect the scientific approach but not to underestimate the power of impulse and intuition. Someone remarked that while there are very few people who can reason, all men can feel, and that is your contact with your fellows.

I will not weary you further with these time-worn precepts, as I know you will be impatient to reach the true business of the evening, which is to criticise the submissions for these medals and prizes, student fellowships which are annually handed out through or by the R.I.B.A. I am afraid time demands that I take you through this pretty fast, and so I do ask for forgiveness in advance from those who may feel that their hard work is being ignored, or summarily dismissed with what may appear to be a casual, unsympathetic or flippant phrase. To them I can only say that brutally brief as this review must necessarily be, no such brevity was to be observed at the time of judgment, when every entry received—as was, of course, its due—its fair share of sincere, lengthy and detailed scrutiny.

A few months ago, in an address to the students at the Royal College of Arts, Sir Kenneth Clark played the entertaining game of imagining himself performing this same task in the 13th, 15th, 17th and 19th centuries. However different, he concluded, would be the advice handed out at these different periods of history, one thing would surely remain constant—the absolute conviction of the speaker. Happy far-off days! Indecision and timidity are the twin evil spirits of our age in architecture as in everything else. Nevertheless, in passing on the views of my colleagues and my own views, I must assume an air of firm conviction—and in truth I don't find this as difficult as I thought it might be, because frankly I enjoyed the task of sitting in on the juries and I think our decisions were right. As to the actual writing of this particular document, I can only say with W. C. Fields, 'Don't think it hasn't been fun, because it hasn't'.

Now the duty of the art critic, we are often told, is not to indulge in verbal fireworks at the expense of his victims, not to exercise hobby horses, nor to let loose bees from his bonnet, nor issue grand statements of personal philosophy, nor even to indulge in the luxury of thinking aloud. We have heard all those in the last thirty years. It is to try first to discover what it is that the artist is trying to do, and only then to judge to the best of his ability the degree of success or failure of the artist's attempt. In other words, don't criticise a man for failing to succeed in something he was not even trying to do. This, of course, sounds a great deal easier than it is, and that, I think, is why so many critics are those who are unashamedly loaded with prejudice, incurably subject to impulse and passion, intolerably vain, ill-informed, illogical and unfair.

Let me say at once, all these faults are mine, and whether they will rescue me from dullness is very much open to doubt. Let no one prevent me from trying, because I have to do it. But do not let anyone expect justice from juries nor from me. You do not get justice but judgment—judgment made to the best of our joint abilities—and you can dispute it at your leisure.

Now I am not taking the awards in any order of importance, because I thought it best to leave those that involve slides—the Victory, the Owen Jones and the Intermediate Design Prizes—to the end when darkness can mercifully disguise your fatigue and permit the exhausted to make a slightly more graceful exit. Therefore, we will begin with the most junior prize of all—the Public and Secondary Schools Prize awarded for an essay or set of drawings displaying interest in architecture.

In the opinion of the jury, Mr. Urwin's essay on the Royal Festival Hall far outstripped its rivals in serious architectural appraisement. It included as an appetizer a detailed analysis of the nature of modern architecture, and its author—the jury's crack, not mine—seems destined for the *Champs de Mars*.

Jackson's pictorial study of 'The West Cumberland Farmers' Trading Society Office' was described as a lively and refreshing piece of graphic reporting, which caught very well the character of a building as it is when the photographers' backs are turned. Mr. Tuckley contributed a set of drawings which was extremely precise in detail and perspective, which captured exactly what some people, I think, including myself, rather view as the ponderous qualities of 'Peterborough Cathedral', while R. G. Attree's measured drawing of a rather desiccated Gothic Revival Church was factual and dry, rather like its subject. But its author is evidently tenacious and reliable, which is a very good thing for an architect to be. The spoils were divided equally—£5 5*s.* 0*d.* to each winner.

It was disappointing that the London Association of Master Stonemasons Prize —a certificate and a sum of £50 awarded annually to probationers and elected students for the best set of sketches illustrating the use of stone in buildings—attracted only two entries, and neither of them (in the opinion of the jury) worthy of the full award. Mr. Blyth's drawings were careful and neatly presented—but the field they covered was woefully narrow. I am prepared to believe that his drawings were *not* copied from photographs, but they *looked* as if they were, which is almost as bad. Miss Price was courageous enough to blow the dust of history off her board—this prize, I think, to the constant irritation of the jury, does attract too many archaeological cobwebs to it—and to study the use of stonework in post-war buildings, but her drawings were too small to show much evidence of depth, and she added no notes on structural or fixing methods. The jury decided, therefore, to give each entrant 15 guineas for a good try—a judgment of mercy, perhaps, rather than enthusiasm.

There were four entries for the Neale Bursary—a certificate and a sum of £125 for the measurement of old buildings awarded for the best selection of drawings and other evidence of research in the field of historical architecture. I am afraid the runners-up, though not unworthy of mention, must be passed over without detailed comment. Mr. H. G. Arnold submitted a very impressive portfolio of plans, sketches and photographs with folders of notes, which honestly almost stunned the distinguished jury with its worthy weight. Mr Arnold wants to study 17th- and 18th-century Nonconformist churches; and, said the jury, rather solemnly, as they dusted themselves down and rose unsteadily again to their feet, it may be felt that this field is of somewhat limited importance, but they were satisfied by the candidate's obvious ability to get the very best out of it. I was extremely impressed myself by Mr. Arnold's —what I can only call—burning enthusiasm for his programme, and though I can't imagine how he is going to get around to so many lonely and scattered sites in these days of petrol rationing, I wish him the very best of luck and look forward to seeing the results of his tour—as Mr. Neale, his benefactor, one-time assistant to G. E. Street, whose work consisted principally of churches and who left a fortune when he died, would indeed have done.

Only the under-thirties can compete for the Hunt Bursary, a certificate and sum of £95 awarded through the generosity of Mr. Charles Hunt of Station Road, Ilkeston —absolutely no record of his life and work seems to exist except this very handsome prize (I looked him up and could not find anything about him) for the study of Housing and Town Planning. Four young lads were brave enough to challenge the Council's desire 'that the holder of this bursary should make *some* contribution to knowledge'. ('Please', I can hear Mr. Ritter whisper, 'Please, no more knowledge'.) But of these four there was only one 'Lucky Jim', A. E. Weddle [*A*]. 'His submitted work', the jury says, 'shows a sensitive appreciation of the problems of the layout of buildings, and we were especially impressed by his thesis on "Buildings in the Rural Landscape".' He intends to visit Denmark to study housing layout, and if he does this as well as his submitted study of Swiss Architecture he should make a valuable contribution indeed.

The R.I.B.A. Silver Medal

Now we come to the Silver Medal. It is curious that if they can be persuaded to write at all, I don't know whether it is ludicrously biased to think, artists, when they write naturally and well, write better than any other amateur author. How vivid, unselfconscious and memorable are, for instance, the writings of Leonardo, Edward Lear and Beatrix Potter, Joshua Reynolds or Delacroix. What a pity it is that architects, as a rule, are so infrequently articulate upon the page—how great a loss to social history, for their lives and interests are quite as varied or quite as fascinating—even scandalous, if you like—as those of any courtier, statesman, actor or doctor, all of whom go straight into the best-seller list the moment they put pen to paper. Nevertheless, with a few notable exceptions, inarticulate we are, and only seven competitors entered this year for the R.I.B.A. Silver Medal and £50 for the best essay on a subject of architectural interest.

Inarticulation is, of course, a question, admittedly, of fashion. I was thinking the other day how it is that in all the arts today it is slightly unmodish to be able to express

yourself. There are those of you who dote on, say, James Dean or Brando in the cinema, who speak entirely in grunts and squeaks and half-completed sentences; those of you who like Elvis in howls rather than songs; those who are interested in painting notice that all painting is done by squirting tubes a distance of 20 ft. And we architects are not blameless. We tend now, where ten years ago everybody said how pretty these buildings are, poised lightly on the smallest possible supports, elegant, gay, pretty, to come clump, clump. Everything is heavy and flat. You get the sort of Walter Pater stage in architecture, or any of the arts, when things become so beautifully phrased and so artificial that one tends towards what some people call cosmetical detail. The tendency is to sweep it all away. Let us get down to army boots and away with high heels. We sympathise with it and it is perfectly natural. I do not know whether on Sunday you heard Lance Sieveking talking about Eddy Marsh. He was Secretary to Winston Churchill. There was a really splendid piece of cosmetic detail, I thought. He had lost a Cabinet paper and Winston was blowing his head off at the office. He said, 'I put it in the War Office tray. I distinctly remember the gesture.' You cannot imagine that sort of thing now. It is the way in which civil servants used to speak. Well, they don't now, do they!

Coming back to the Silver Medal, two of them. 'Napoleon' (on parish churches) and 'Alexander' (on the work of Tijou) raked conscientiously over familiar ground without unearthing anything new. 'Dobbin' lived up to his pseudonym by plodding laboriously over the well-trodden ground of Newcastle Dobson, a very great architect, pretty well-known stuff but he presented his material extremely well. 'Kabir' (these names!) clearly impressed the jury with the deep-felt sincerity of his admirably written essay for the 'liturgical movement' in its relation to church design, but the jury felt he did not really develop this adequately architecturally. 'Arch' was unremarkable, but 'Dance' wins an Honourable Mention for his really fascinating accounts of Rickards—the famous Edwardian 'artist-architect'. The jury found what they called the structure of this essay unsatisfactorily loose and they would have liked, as I would have liked, to learn more of the architectural and social background against which Rickards worked. They have named 'Squinch' as the winner for his study of Serbian churches—a contribution, they say, to Byzantine architectural studies, executed with scholarship and judgment, and well related to the historical background. I must confess to a personal and nostalgic sympathy with this award, because I myself some 25 or so years ago pursued exactly the same studies in Greece; and though 'Squinch'—not for nothing, as he tells us in his preface, is the Serbian 'c' pronounced 'ts' as in bats—was foolish enough to make the elementary error of omitting to mention in his index of references my own work on the subject (two volumes in the R.I.B.A. library), I am prepared to back the award without rancour. But now I hope he will go straight upstairs and take it out.

The Rose Shipman Essay

Very few architects—curiously enough—seem to apply for the Rose Shipman studentship awarded for 'research involving travel'. I do not think you could have a more exciting and evocative invitation than that. But this year there were eleven entries—and even more encouraging than numbers was their high quality. In such circumstances the jury must suppress their sympathy—which I have so warmly—for the entrant who is obviously willing to study absolutely anything for the sake of getting around and seeing things. They have to choose a man (or woman) whose research will clearly be of value to architecture and to the profession as well as to himself. They commended Mr. Gordon Graham for his skilful presentation of his case to continue his studies in Hyperboloid Structures, but went nap in the end on Iain Langland's because his chosen subject—Railway Stations—is in their view long overdue for study, and is of the greatest possible interest to his profession. Mr. Langland's impressed the jury with his ability to carry out his studies conscientiously and with imagination. He is obviously not a professional pot-hunter with a smooth line of talk—and with £450 in his pocket to help him obviously has an interesting time ahead of him. I must say I wish I was going with him. Incidentally, isn't it time—if only out of loyalty to the sex of the donor—Rose Shipman, whose only frail but loyal link with architecture was through an uncle by marriage—that we had a few entries (and why not a winner?) from women architects for this studentship?

The Alfred Bossom Research Fellowship

The Alfred Bossom Fellowship for post-graduate research is rightly regarded as one of the most eagerly sought after of all R.I.B.A. awards. We all know that this word 'research' can cover a multitude of activities, often being no more than a euphemism for delaying decisions upon the drawing-board—how well we know the temptation to postpone self-committal, to do nothing until we know everything—or even a capacity to trace or cut out with scissors. Of course, applicants for the Alfred Bossom Fellowship can't get away with that sort of thing, but it is not very easy to find subjects for study which are not already well dug over or which lack urgency.

The jury, I think, was very pleased to find that all seven entries were well up to standard, and they had considerable difficulty in choosing the winner. The Fellowship was finally and unanimously awarded to Dr. W. A. Singleton who wishes to study Project Management—a subject, I think we all agree, of the greatest urgency and importance to the profession at this moment. As the President of the A.A. recently reminded us, the architect may continue to claim leadership in the Building Team only in so far as he possesses the knowledge and qualifications to hold that position. The jury felt that the results of Dr. Singleton's studies—if not spread too thinly upon too vast a canvas (and they want to discuss this point directly with him)—might well develop into a sort of manual of management which could be of the greatest help to every architect. They also wished to commend to the attention of the R.I.B.A. Text Book Committee Mr. Voelcker's study on the Heating of Small Buildings.

Measured Drawings

The four entries for the R.I.B.A. Silver Medal and £75 for Measured Drawings, I think, can only be described as rather a mousey lot. The standard of all drawings was no higher than adequate, and worse still, as far as I could see, uninfected by love of the subject measured. If such work is undertaken purely as an exercise or as a duty and not as a tribute of affection or admiration from yourself to the work, then in my view you have wasted your time. You must love and admire the building you are measuring. Otherwise for 'darn sake' don't go and measure it.

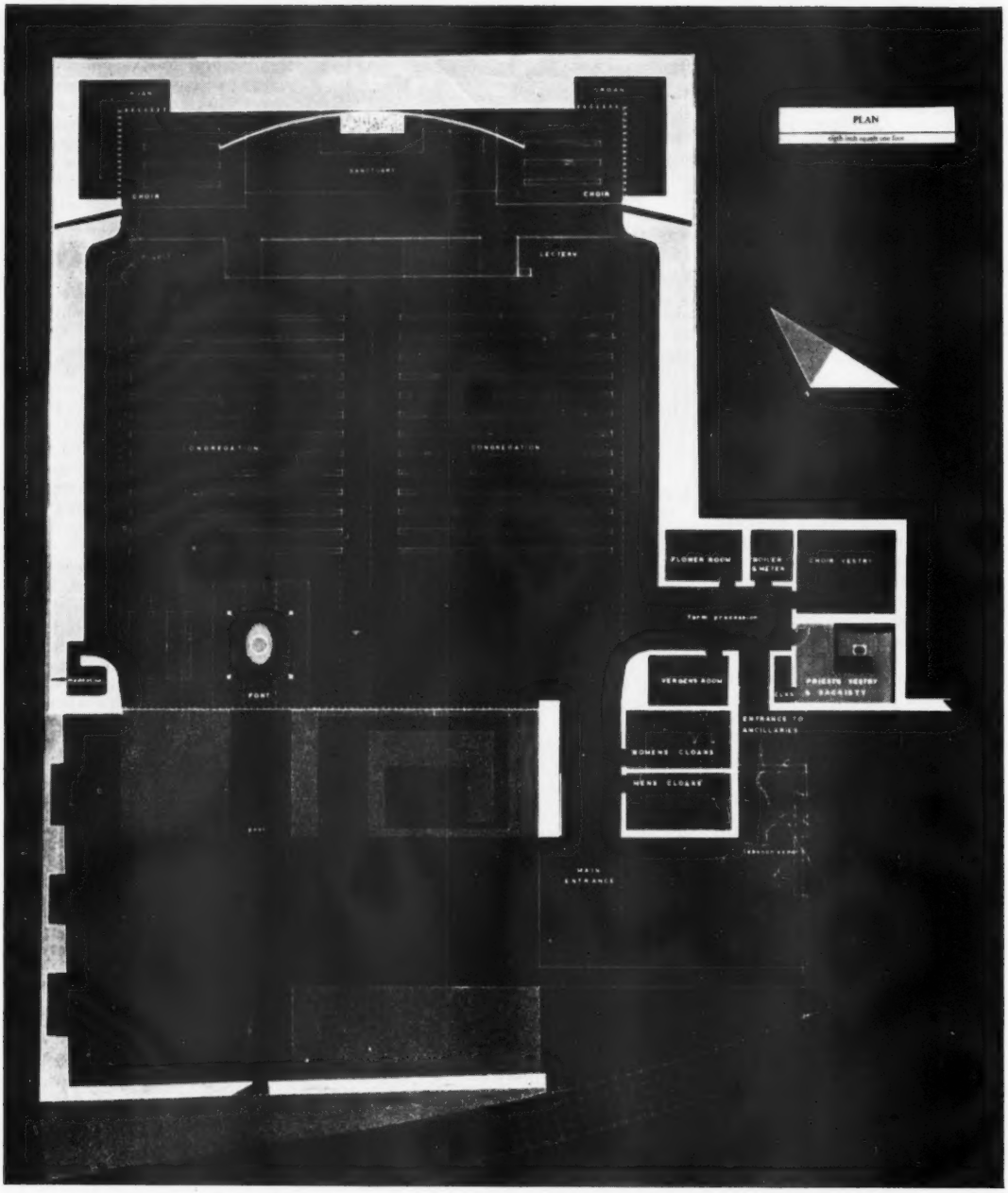
The jury's opinion was that 'Acorn's' submission was well enough drawn, but to them and to me it fol'owed the infuriating convention of drawing F.S. details across other details which obscured both. If something is worth drawing out and showing as a form, it should be drawn out so that it can be seen and appreciated as a form, not as a piece of meaningless pattern.

They also suspected 'Delighte's' plotting notes as not being grubby enough to be genuine. 'Amiata' who submitted some neat and carefully drawn pictures was criticised for having treated a very large group of buildings small-mindedly. P.S. for Amiata and others: plotting notes made in Italy should carry wine-stains as evidence of their authenticity!

The medal is awarded to 'Quill' for a very complete and accurate study of Romsey Abbey. Although adjectives like 'anaemic', 'lifeless', 'uninspired' were flying around when the jury was examining his draughtsmanship, they all agreed that his thoroughness was exemplary (I caught Mr. Summerson personally checking the accuracy of his diagonal measurements) and that anyone faced with the problem of rebuilding Romsey Abbey from scratch could quite easily do it from the work of Quill.

The Owen Jones Studentship

Candidates for the Owen Jones Studentship—a certificate and the sum of £250 for the study of colour as a means of architectural expression—would, I think, have been delighted to listen-in to the spirited arguments that developed in the jury over this award. I had to stand well back to avoid being cut by flying adjectives. Not that the general standard of entries was very high—it was good and as always the application of colour in the original work fell far below the quality of the research studies. But the struggle for the prize between 'Utchar' (the



The R.I.B.A. Intermediate Design Prize. Plan of the winning design by Mr. P. A. Crichton. Subject: 'An Anglican Parish Church in a New Housing Area'. The north-west elevation is shown on the facing page

eventual winner) and 'Todi' (the runner-up) was close-fought and lively.

'Utchar's' studies of Oriental street architecture were beautifully presented and so bewitched the jury with their unusual colour palette—none of that old Munsell stuff (I am afraid you cannot appreciate them there on the screen but you can see them probably upstairs)—and strange Eastern forms that they were prepared to forgive a rather pedestrian application of principles to his hotel interiors which you will see at the bottom right-hand corner. 'Todi', on the other hand, showed a most handsomely presented, well-thought-out and interesting analysis of colour applied to an industrial structure. He failed, however, to convince the jury from his studies—limited as they were in palette to sharp reds and blue greens—that he was capable of straying outside the narrow structural cage he had chosen to work in. He is, on the other hand, a ravishing draughtsman, a real 'smasher', with a highly methodical approach to colour and form, and he very well deserves his certificate of honourable mention.

The work of 'Itinerant' was not remarkable, but it was interesting to observe the strong change in style of the draughtsmanship, his later studies being far more lively. Perhaps he wandered into his own Arts Centre and picked up a few tips!

'Itinerant' is obviously improving fast and is or might be a prizewinner some day. 'Horace' was worthy but pedestrian. His theatre scheme lacked any feeling for theatre. 'Anglo' submitted some extremely pretty and delicate studies but his or her (she may be a girl, I don't know) hall gave me the creeps. 'Abu' tried hard but failed, I'm afraid, to keep up with the Joneses.

Once again we learn—as we do nearly every year—how, generally speaking, uninspired is our profession when confronted with the problem of colour.

The Intermediate Design Prize

The R.I.B.A. Intermediate Design Prize—a certificate and the sum of £100 offered in alternate years for the study of Contemporary Architecture in Europe—a magnificent opportunity—tempted 14 entrants to struggle with the problem of a church in a New Town neighbourhood. None of the results were dull. Some of them were ingenious, a few were feverishly determined to knock us sideways (but jurymen, I may say, in competitions are chosen for resilience). To my mind all of them were failures, pretty complete failures, but not shameful. Now, the subject is a difficult one compared with, say, a school or an industrial plant, or local authority housing, where you can get away with the current formulae without causing either Professor Richardson or Peter Smithson to raise their eyebrows. But a parish church which is something different! Here there is no escape from aesthetic self-committal. There is no substitute for inspiration and no substitute for visual judgment. Here architecture is something more than just a correct answer to a complicated question, here sensibility to site and to surroundings, a correct assessment of atmosphere, clarity, sincerity and above all modesty, very different from timidity, are what is needed; the approach of the eye and the heart perhaps rather than that of the intellect. The architect is very uneasy in the presence of instinct—never of intellect—he regards it as untidy and suspect, poor coward that he is—and he will grasp at any straw of reasoning to keep him afloat upon its mysterious and unpredictable currents. Are we, in censoring ourselves for timidity or idleness, being unfair to students who, after all, are so far only half-way to the doom of qualification? Perhaps we are. But as we elders hurtle by in our Gadarene rush, may the thunder of our little cloven feet beat out for you a warning tattoo.

But back to the question of this Parish Church. Those who set the programme wisely asked for a building that would fit discreetly yet proudly within its neighbourhood, that possessed architectural quality and simplicity and would be economical to maintain. Idle hopes! Here were buildings that would be admirable Pavilions of Religion in an international exhibition, that were so bossy or demonstrative that they could only disturb or, eventually, repel their congregations with their ingenuity; here were personal monuments to architects' undying arrogance. Will we *never* learn to temper the arrogance which is necessary to creative activity with the humility of the artist in the presence of his art? Here were buildings that would, in the elaboration of their structure or choice of materials, break the heart of any Parish Council which was responsible for maintaining them and cost an annual fortune to maintain; and to me an absolutely unforgivable fault, buildings that were clearly visualised as isolated exercises, whose site boundaries were those of the paper upon which they were drawn—no conception, it seemed to me, of what these buildings were going to stand in and what they were going to be surrounded by.

Perhaps I am being unduly harsh and in consolation may I add that before the competitors sank without trace they struck out bravely, that most of them did far better than their elders in the *Victory*—a far easier problem. And I am sure few of us practising architects would do all that much better. So I am judging by high standards, which I hope they will regard as a compliment.

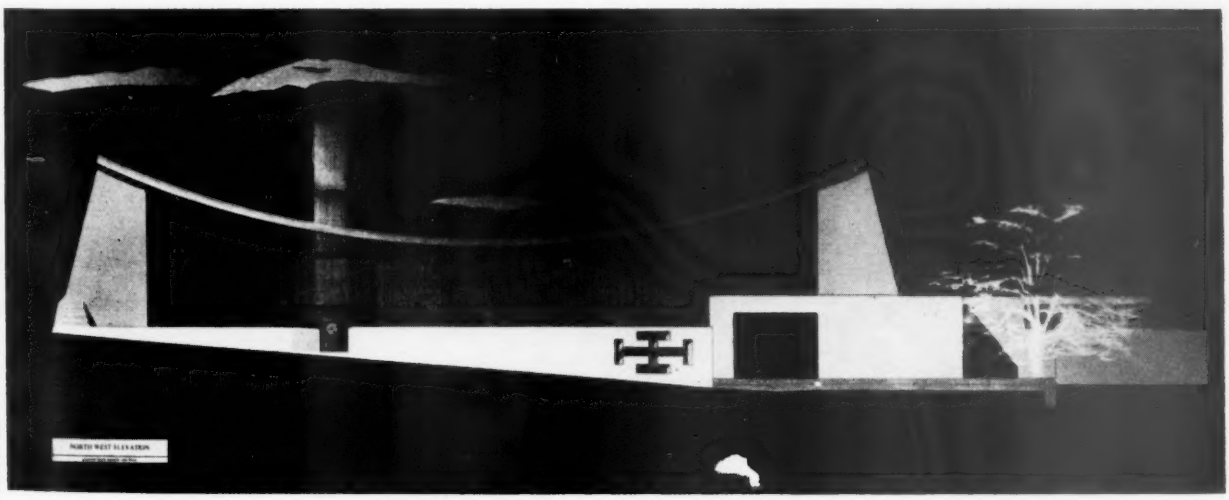
Here are a few detailed comments, first upon those not placed. 'Jan' and 'Discus' submitted competent, well-drawn solutions, but they failed to catch the heart or eye of the jury. 'Gibraltar' is to be commended for having thought carefully about his internal lighting and contrasts of light and shade, what is going to be against what piece of light. He did work through his building with sensitivity. He did think sensitively in many ways.

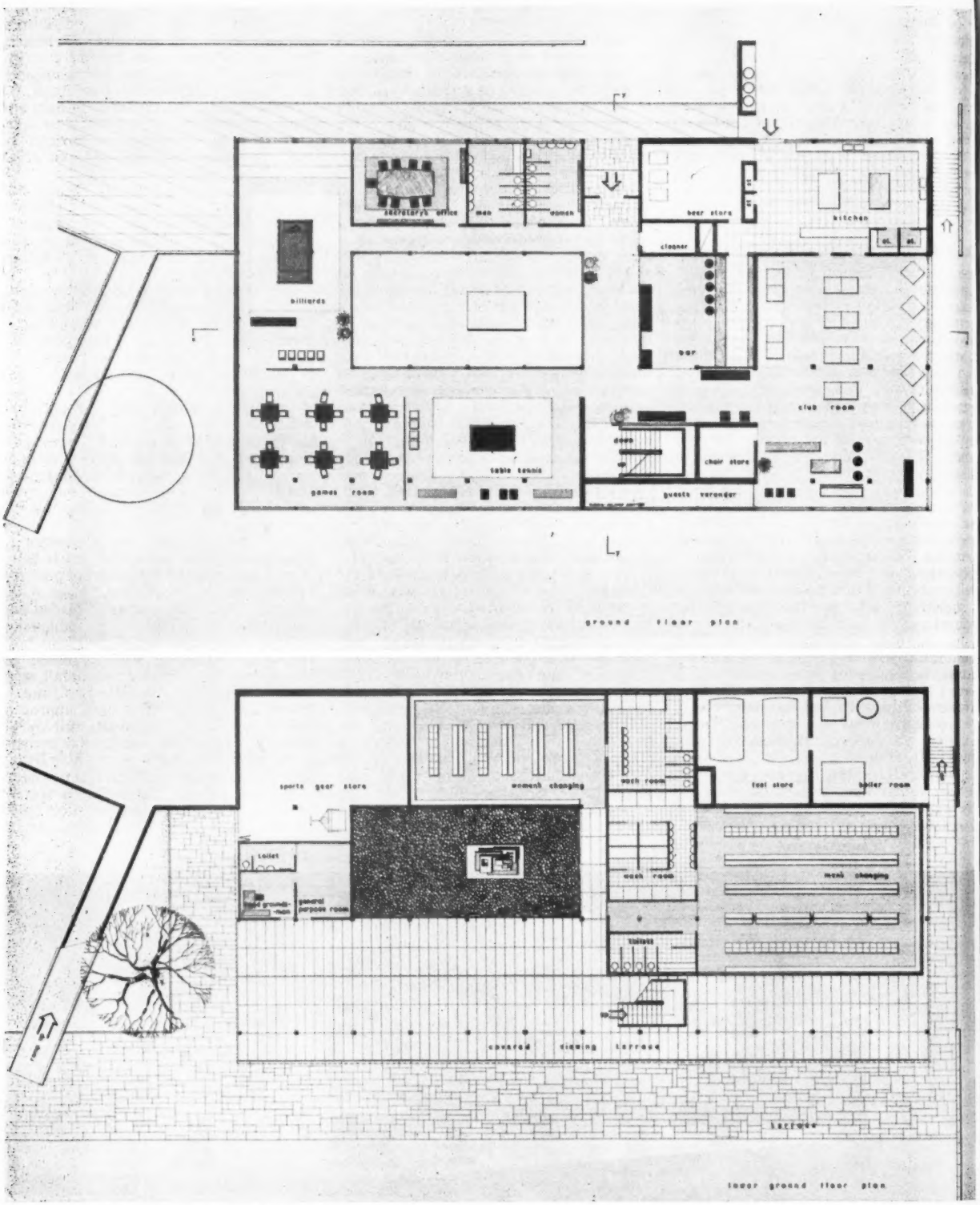
The design submitted by 'Veritas' had good qualities—the planning was able and he had obviously thought about materials. But there was a hideous conflict of scale between the church and the ancillary buildings.

One building to me is completely out of scale from the other. Here was the really fundamental error and he made his tower pretty mean. It looked as though he had come to the top of the paper and torn it off, as though he wanted a bit more paper.

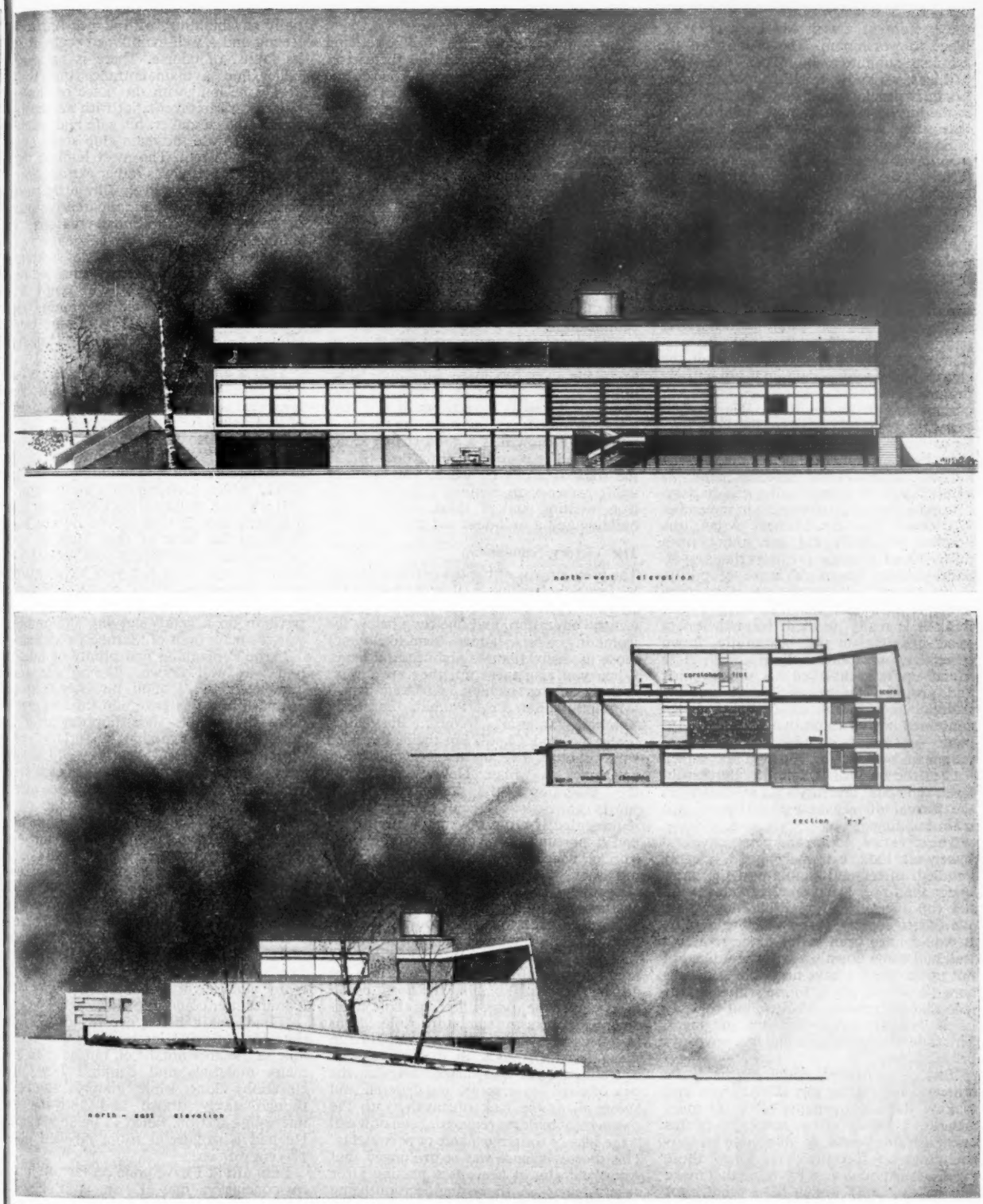
Equally miserable in form and uncertain in scale were the towers of 'Jonathan'—a bit of an exhibitionist—and 'Tarretburn'. The latter had handled his levels quite thoughtfully but was rather over-ingenious and he placed his lavatories right on the axis of the nave which we thought was not very thoughtful.

'Alfa' made a very brave attempt at monumentality but succeeded only in being clumsy and oppressive. This sort of powerful architecture needs confident hands at the controls. Otherwise it remains leaden and dour. 'Hevea' and 'Broc' (his submission suffered from being coarsely drawn) both submitted interesting schemes based on simple basic conceptions that didn't seem to develop satisfactorily. 'Hevea's' church, despite its strong structural approach, seemed to be built of no really well-known building material (or alternatively perhaps might have been built in anything?) and although he had designed a dramatic system of daylighting over the centre, a sort of cone, the jury suspected that its effect might be more depressing than magical. Truth,





The Victory Scholarship. A Silver Medal and £150 for the Advancement of Architectural Education. Subject: 'A Club-house of a Sports Centre for an Industrial Firm'. Two sheets of the winning design by Mr. Fred Woodhead (Student)



The Victory Scholarship. Two sheets of the winning design by Mr. Fred Woodhead (Student)

we know, lies at the bottom of a well, but the bottom of a well can be a cheerless place to worship in. The promise of the esquisse submitted by 'Thea', as often happens, we know, failed to materialize in his final development, and 'Guarini' was, in the jury's opinion, though better in scale than some, rather heavy-footed.

Equally in nearly all the schemes so far mentioned scale was the biggest weakness. 'Scale, scale', said the old A.A. panto couplet, 'you are the reason why we fail.' Not for the first time is truth found in cracker mottoes. Three competitors reached the final: 'Nagrom', 'Pythagoras' and 'Ettu' —the last being adjudged the winner. 'Nagrom's' plan was good, his conception —even though visitors might too easily trip over the font upon entering the door— an arrangement of external decorative panels—exciting, if exhibitionist, his sections gracefully proportioned. To set the church in a pool is a definite if not entirely original idea, but what, we wondered, curious moral scruples drove 'Nagrom' to carry the water right under the floor? As far we we could see it goes all the way under here. I rather thought this was mere 'green hattery' unless your rector's name is Cousteau. It is what I call green hattery. I suppose you are all too young to remember *The Green Hat* by Michael Arlen, the heroine of which did everything from purity. And though I can perhaps sympathise with 'Nagrom's' sense of purity, if the water looks as though it is going under, it must go under for ever. I do not think it is really justified. Nevertheless, a good imaginative and beautifully drawn scheme, as was that of 'Pythagoras', close runner-up, who handled his site-planning and grouping quite excellently; and he maintained a simplicity of form which contained very decorative richness, but made—in the jury's view—a basic error of judgment by carrying through the screen wall at the back of the site at church-roof level. This, in the jury's view, destroyed the formal dignity and aloofness of this main building.

The elevation section and perspective and tower all look extremely good, cleanly handled, direct and simple and the entry under the tower is extremely good. But up the top there is a great big huge wall. We felt it destroyed some of the dignity. It would have been better if the retaining wall had come down wherever you like but not up to there. I have no doubt if he was here he would argue himself blue in the face that his scheme is better, but as I say he is not getting justice but judgment. This is an extremely good and in many ways brilliant entry.

'Ettu', the winner, could justifiably be criticised for pulling out all the stops and making the window-panes rattle for miles around. I think many members of his congregation would be ill-at-ease in surroundings so forceful. You know those awful advertisements in the tubes that make people say 'Ooh!' and 'Ah!' I think a lot of people would come to this church and say 'Ooh!' What is a more serious test of a building is whether they come back time and time again and make a different sort of noise—'a-ah!' That is possibly where 'Ettu' fails, despite his brilliance and success. But the jury did feel themselves in the presence of an architect. The scheme is grandly conceived and full of small, imaginative touches, sure signs of a well-loved and well-thought-out design, and his drawings were magnificently if slickly presented.

There are a number of entries which seem to have stone altars. I think I am right in saying it is not allowed in the Church of England; I think they have to be in wood and people might take a bit of trouble to be certain about that, because there is a temptation to have an altar which is a great lump of marvellous stone—it looks nice, like Italian architecture—but you cannot do it.

This depressed sagging roof which hangs over so many drawing-boards today—and I fear soon over too many buildings—does not give me personally great pleasure, although it has its attractions. It is, I feel, a soft shape—I can never get the feeling—although I know it is a good strong structure. I find it possibly a little doubtful as the roof of a church where you want to uplift rather than compress. Nevertheless, it is exciting and, I think, a successful building and a well-deserved prize.

The Victory Scholarship

The pseudonyms of the ten entrants for the Victory Scholarship—a silver medal and the sum of £150 for the advancement of architectural education, and one rung below the Rome in the prize-ladder—read like one of those modish Milanese architectural firms. When you ring them up, they are always in Buenos Aires teaching. I will read them— 'Mompou', 'Barszcz', 'Pluma', 'Zambesi', 'Bimbo', 'Taliesin', 'Arno', 'Bushbaby', 'Fabriano' and 'Chad'. But their assembled work did not live up to their illustrious colleagues in Milan. Nobody could say the programme—the club-house of a sports centre—was difficult or dull; indeed it presented lively problems of circulation and opportunities for architectural expression of which few entrants, it seemed to me, took the best advantage. The jury, once they had got over the initiating pastimes of 'hunt the boiler flue' (nearly always unsuccessful, as though often it took off from the boiler all right it seldom was seen again—I suppose someone will argue it took off by down-draught into the nearby shrubbery) or 'find the north point' or 'decipher the room titles', or those maddening numbers and miniature explanations in one corner, were sunk for some time in silent despair, frankly, at the general lack of feeling for site and surroundings, at the lack of clarity in structure and material, and above all at the lack of sensitivity to the *character* of building required. I can only call it the idea of the atmosphere or personality. This morose silence was so prolonged that you could almost hear, as a passing juror nastily remarked, the wrong decision being made. The charge, however, was baseless, for the jury was unanimous in the end in naming 'Bushbaby' the winner for a serene, direct, not very adequately planned but potentially gay building, with a nice horizontal feeling and a well-maintained scale. It has its faults, of course. There is an elusive boiler flue, a main entrance that would always be loud with the noise of slushing cisterns, a caretaker's flat with no separate access (the caretaker, his wife and children all have to use the main club stairs as far as we could see). The most baffling thing was this. It really was rather extraordinary. There was an excessively silly little guests' verandah, narrow and apparently totally obscured, for elevational reasons, by shutters.

There is the caretaker's flat with the staircase across the terrace. Imagine how popular the caretaker's wife with four screaming children would be, coming back from her shopping while you were entertaining a distinguished visiting team. It is a nice drawing.

That is another nice drawing with a very nice horizontal feeling and handsomely presented against the menacing black skies of an English summer afternoon.

The jury also liked 'Barszcz's' design, a clear sympathetic drawing and good choice of materials. But the building was very 'thick', which is wrong for a club room.

It is a thick building, isn't it? If you have a playing-field to look at you do not want to sit at the back of this. Here is your nearest view. Admittedly you get a bit of light through here, but you have really a very depressing deep room. Excessive thickness is surely inappropriate in a pavilion on a gently curving site and this was the main fault of 'Zambesi's' design.

'Arno's' planning had points of interest and was well drawn. 'Bimbo' departed completely and, I think, unwisely from his esquisse, and this gave him time to empty some disagreeable 'shoe-shoppery' over the elevation of his design. 'Fabriano' presented his scheme clearly—I liked his herring-bone tweed cladding—but his scale was terrible and the main entrance mean. 'Taliesin' provided a spacious club room and a good site plan (quite different, incidentally, from the enlarged version, one drawing was going one way and the other the other way as far as the wind was concerned. We are very broad-minded, but I must say some of the internal room shapes can only be described as merciless. Unnecessarily complex planning and silhouette marred 'Mompou's' pavilion which looked like a building designed to introduce as many methods of roof-flashing as any lead manufacturer could hope for.

'Chad' has a better eye for proportion than for scale and his building was agreeable in the horizontal feel, but he used too many materials and couldn't leave his elevations alone, while 'Pluma's' solution, though nicely drawn and showing an interesting section, failed to make a catch. He had a wonderful room labelled non-playing women!

I am afraid I have gone on far too long. In conclusion may I, on your behalf, thank and congratulate all prizewinners and competitors. I think every competitor should be praised just because he entered

That shows something which should genuinely be praised. I also thank the many busy and distinguished men (not always the same thing) who took so much time and trouble in judging your efforts, the R.I.B.A. itself, who since its first prize award in 1835 have tried continually to raise the standard of architecture through the award of studentships, scholarships and prizes (and in particular Mr. Haynes and his staff for all their help), and finally you, the audience, for having listened to me so patiently.

VOTE OF THANKS

Dr. A. S. M. Symons, B.Sc., A.R.C.S., F.Inst.P., Principal of the Northern Polytechnic: I count it a very great honour to be invited to move this vote of thanks. I think we have all tremendously enjoyed the feast of wisdom and wit to which we have been treated this evening. It is not always that a dissection or surgical operation or post-mortem—I don't know quite what you would call this—takes on this sort of party spirit, and I think we have all enjoyed tremendously the contributions of both the President and Sir Hugh.

The President very aptly laid out once again for us—and I enjoyed this, not being an architect but a mere scientist, I enjoyed it very much—the abiding qualities of a person who is going to practise successfully the profession of architecture.

His reference to Sir Christopher Wren pleased me very much, because as I expect you all know he moved to architecture from the Chair of Astronomy at Oxford. Whether you will think he was successful as an architect because of that or in spite of it, I do not know. But even before that he had been Professor of Mathematics, and many and varied were the papers which he contributed to the Royal Society on all branches of investigation of scientific studies. One might think that probably his great success as a designer was largely due to the fact that he knew so well the properties of the materials which he was using.

To Sir Hugh I should like to express a word of thanks on behalf of those who have submitted their work for criticism and through him to all the members of the jury who must have spent interminably long hours in poring over this work and—I think we should all agree, in spite of what Sir Hugh said—in bringing justice out of this entry. Justice must not only be done but must manifestly be seen to be done if we are going to be happy, and most of us who have listened tonight will feel that due consideration has been given to all possible sides of this work.

In fact, I thought that had I been a candidate for these prizes, I would have been grateful for the sweets and sugars which covered the pill and which I would have been almost eager to swallow, recognising that the medicine must inevitably do me good.

As a layman, I was a little intrigued by some of the comments, I must say, which Sir Hugh put in. I was interested, for example, to hear about the church designer who made his congregation uncomfortable; but the jury were quite clear that they were in the presence of an architect! I do not quite know what they mean. Also there is the fact that a club-house, with flushing cisterns, that has a flue that does not go anywhere in particular, can still win prizes. I think that shows the jurors were certainly well provided with the milk of human kindness. This has much appealed to me.

So on your behalf I would move a very hearty vote of thanks to the President for his great words of advice and of encouragement to us, and to Sir Hugh Casson for the very charming way in which he brought to us the decisions of the jury.

Mr. R. E. Enthoven [*F*], Chairman of the Board of Architectural Education: If this vote of thanks which I am privileged to second is by tradition a dual-purpose one, to President and Critic, tonight the duality is partly resolved, because the President was himself, only a few years ago, Chairman of the Board of Architectural Education. In this capacity he may be said to have helped fertilise the tender blooms which have borne fruit today on the screens upstairs in the Florence Hall. If, therefore, Sir Hugh had found the standard of work deplorably low, it might be a matter of some embarrassment. This, however, has not happened, and so I congratulate all the competitors, both winners and also-rans.

At the same time, Sir Hugh in his disarming way blew a healthy dressing of insecticide with an encouraging warmth: but the title 'critic' itself, on occasions such as this, seems to demand qualification in relation to Sir Hugh. He—like all the unpaid hacks who have shouldered this task before him—is an active, widely experienced architect by profession, both on land and on sea, I notice; but as a critic he retains his amateur status. This combination, I feel, ensures that certain humility to which he himself has referred in appraising other people's design solutions, which makes comment helpful and acceptable.

We are indeed grateful to him for his brilliant review backed, I can confirm, by hours of hard work, both mental and physical, off-stage.

The President in his address has given us a valuable and penetrating survey of the background of architectural education in this country. In doing so he has touched on a problem of increasing importance to which Sir Hugh has also referred—how to satisfy all demands for a balanced training. Taking the long view, there is danger in too much worrying about the vast field of technical knowledge needed today as a basis for immediately earning bread and butter. The feeling of being frantically urged on, like street traffic, quicker than powers of acceleration permit, tends to produce a mental reaction which puts the brake on deep appreciation and continued development of ideas for which this technology provides the medium.

Anyone hoping to deal significantly with architectural problems thirty years hence will find conditions that will very likely differ more from those today than those today differ from thirty years ago. To stay the course as a team leader and not just a team administrator one must have time to develop a capacity for reflection and intellectual insight, and it is in this that the awards made tonight, given particularly for travel, post-graduate experience and study, must surely have very great value.

I have great pleasure in seconding this vote of thanks.

The vote of thanks was carried by acclamation.

The President: I must thank Dr. Symons very much indeed for his generous references to my quite inadequate address. I do thank him most sincerely for what he has said. I should also thank Mr. Enthoven. I can recollect a few years ago when I had the privilege of proposing a vote of thanks to him when he did the criticism. His criticism was quite amusing, and at the same time I think I must refer, although it is not on the agenda, to the wonderful way in which Sir Hugh has done what could so easily become a boring job. He has put life and vigour and plenty of fun into his task and I would particularly thank him for his reference to my father who almost to the day fifty years ago carried out the job which has just been done. I can only think how astonished my father would be were he to be here to see me in this present position.

I will now call upon Sir Hugh Casson.

Sir Hugh Casson: You have listened to me far too long tonight. I only want to thank Dr. Symons and Roddy Enthoven very much indeed and you, Sir, for the very nice things you have said.

I would also like to say how very difficult it is and in many ways tedious—more tedious for you than it is for me—to criticise people's designs when they are not there to argue with you. One would really have liked—I don't know that it is possible—to have 'Ettu' and 'Mompou' and 'Barszcz' and all those creatures here and let them see why we thought they were not good enough or why they were not better than they are. Unfortunately, if that had happened we should be here till next year, when the next critic would be taking over.

The Medals and Prizes were then presented.

Towards Industrialised Building

By R. T. Walters, A.M.I.Struct.E.[*A*]

IT IS EVIDENT that the building industry is undergoing some kind of change. In the speeches, articles and letters which appear in the technical journals, there is a tendency to be rather more self-critical, to ask whether the industry is really as efficient as it might be, and to examine more closely its position in the country as a whole.

This article is an attempt to discover whether there is any order or pattern in the way the industry is changing, and whether it is moving in any particular direction.

Definitions. To begin by defining a few terms. For the purpose of this article '*the building industry*' is taken to include everyone connected with building—architects, all kinds of engineers, quantity surveyors, contractors, manufacturers, sub-contractors and suppliers. The term '*building processes*' covers the whole of the physical treatment of materials from their raw state to their final form in the finished building. Building processes are divided into two categories. '*Manufacture*' means all those which take place off the site, '*assembly*' all those which take place on the site.

Traditional Building. Before the Industrial Revolution, both the manufacture of building materials and their assembly on the site were carried out by hand. Stone was quarried and dressed by hand, bricks and tiles were made by hand, timber was cut and shaped by hand. Once made, the materials were assembled together on the site by well-established handicraft methods.

If the word '*traditional*' is used to describe building processes which are mainly carried out by hand, traditional building can be identified as the combination of traditional manufacture with traditional assembly.
Thus:

Traditional Manufacture + Traditional Assembly = Traditional Building.

Conventional Building. The Industrial Revolution brought a sudden increase in the amount of power available. Coal was converted into steam, engines became the prime movers, machines were invented to do the work of human muscles. In building, the process of industrialisation was applied *to the manufacture of materials rather than to their assembly*. Machines were developed for making bricks and tiles. Power-driven saws, planers and lathes were invented for cutting and shaping timber. In the course of time, a whole range of industrially-made products came into being, such as structural steel, cement, steel reinforcement, premixed plaster, factory-made windows and doors, sheet materials, ironmongery and so on. The manufacture of most of the materials used in building has now been industrialised, but the processes of assembly on the site are still carried on very much as before. Thus we have arrived at a method of building which combines industrialised manufacture with traditional assembly and, since it is the method most widely used to-day, it may be described as '*conventional building*'. Putting this in the same form as before, we may say that:

Industrialised Manufacture + Traditional Assembly = Conventional Building.

A statement of this kind cannot be literally true. Many hand-made building materials are still being used; for instance, facing bricks. Similarly, even the smallest site has one machine—the concrete mixer. But as a generalisation it typifies the building processes of today reasonably well.

Industrialised Building. The corresponding proposition for industrialised building is that:

Industrialised Manufacture + Industrialised Assembly = Industrialised Building.

This raises the question, what does 'industrialised assembly' really mean? In practice, it takes two forms which need to be clearly differentiated.

First, there is the application of machines to the essentially traditional methods of assembly, in order to reduce the amount of physical effort involved. We have already mentioned the concrete mixer. In addition there are silos to hold materials in bulk, hoists to lift barrows full of concrete and piles of bricks, giant cranes to pick up steel and anything else that comes. This use of machinery improves the efficiency of the assembly process very considerably. But, although it makes the work on the site go faster, it does not change it in its essentials. The concrete is still finally placed by hand, the bricks are laid by hand and the plaster is applied by hand. Mechanisation has brought traditional assembly to somewhere near its maximum efficiency, but we cannot properly say that it has been industrialised. The net result must therefore still be described as conventional building.

Secondly, there is a quite different approach. It says, in effect, that industrialised building will not be achieved until *the whole of the building process is organised to make the maximum use of machines at every stage*. Such an attitude is habitual in many industries but to describe what it would mean if applied to the building industry we must pass from generalising about the present to speculating about the future.

If building components were designed from the outset to make the best use of the machines available, their size, shape and weight would be determined with this in mind. The more complicated processes would tend to be done in permanent factories by comparatively elaborate machinery. Less exacting processes, which did not require controlled conditions, might have simpler types of machine applied to them in temporary factories, on or near the site. The assembly process itself, instead of being a self-contained entity as it is now, would take its place as the last of a sequence of processes, all of which would be governed by the same kind of thinking.

By the time they reached the building, components would only need to have quite simple operations done to them. They would already have been designed to be convenient for lifting and placing in position, and joints would be such as could be made with power-driven tools, such as spanners and screwdrivers. Cutting, fitting, mixing and spreading would be largely eliminated. Even finishes, such as painting, would be applied by machine and before the component was fixed in place. In short, the men assembling the building would no longer be doing anything by hand which could have a machine applied to it if it were done somewhere else.

Such a concept of building is useful as a hypothesis but it should not be regarded as an aim. Its purpose here is not to predict the future, but to help us to find out in which direction the industry is moving. This imaginary kind of building developed, as it were, to the limits of present-day technology, could properly be called industrialised building.

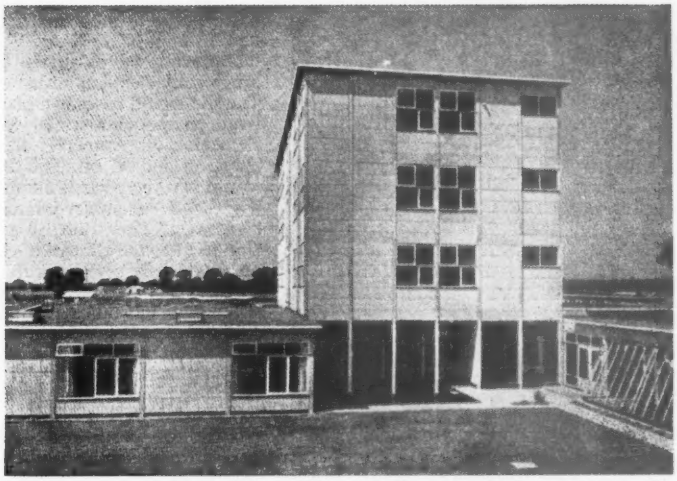
Why have Industrialised Building? If we can accept the foregoing classifications, oversimplified as they are, the building industry of today is, broadly speaking, conventional. Within it however there is a distinct *trend* towards industrialised building. This can be seen in the extent to which the prefabrication of components, and even of whole buildings, is already taking place, and in the quite remarkable number of new materials, new products and new techniques which trend in the same direction. A movement towards industrialised building seems to have begun. Although we cannot foresee what it will lead to, we may ask why it is happening at all.

Many reasons have been put forward. One is that conventional methods cannot always provide the building within the time required. Pressure to reduce the 'time required' may arise because the building is part of a scheduled programme, as in the case of schools, or because the site is valuable and has to earn its keep, or simply to economise in site overheads.

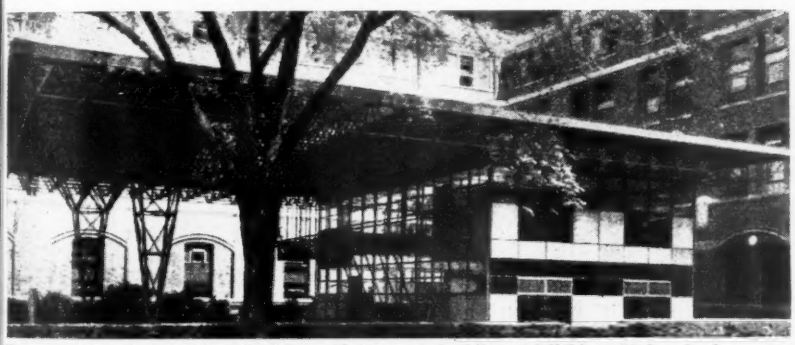
Other reasons are concerned with manpower in times of full employment. Whenever the country needs to economise in manpower there is pressure to increase the productivity of the individual, and hence a

Experiments in Industrialised Building. (1) Interior of a house at Santa Monica, California, designed by Charles Eames, using available factory-made components

[*Photo: Julius Shulman, 'Architectural Forum', Sept.* 1950



Experiments in Industrialised Building. (3) Worthing Technical School. The prototype for a system of precast prestressed concrete components. Designed by the Ministry of Education Development Group



Experiments in Industrialised Building. (2) Research building at Michigan University incorporating a demountable space frame. Designed by C. Theodore Lawson, Professor of Architecture, and his colleagues

['*Architectural Forum*', *July* 1955

Experiments in Industrialised Building. (4) Wykencroft Primary School, Coventry. Erection of light welded lattice steelwork and precast concrete flooring units. Architects: Architects' Co-Partnership

strong incentive towards industrialisation. Similarly, competition for labour between industries finds the conventional building industry at a disadvantage with others which can offer better working conditions and amenities.

Yet another reason is that some architects, instinctively realising that industrialised building lies somewhere ahead, have designed buildings, or parts of buildings, within the disciplines which industrialisation may be expected to impose. When this willingness to experiment in design coincides with pressures such as those described, building tends to move towards industrialisation.

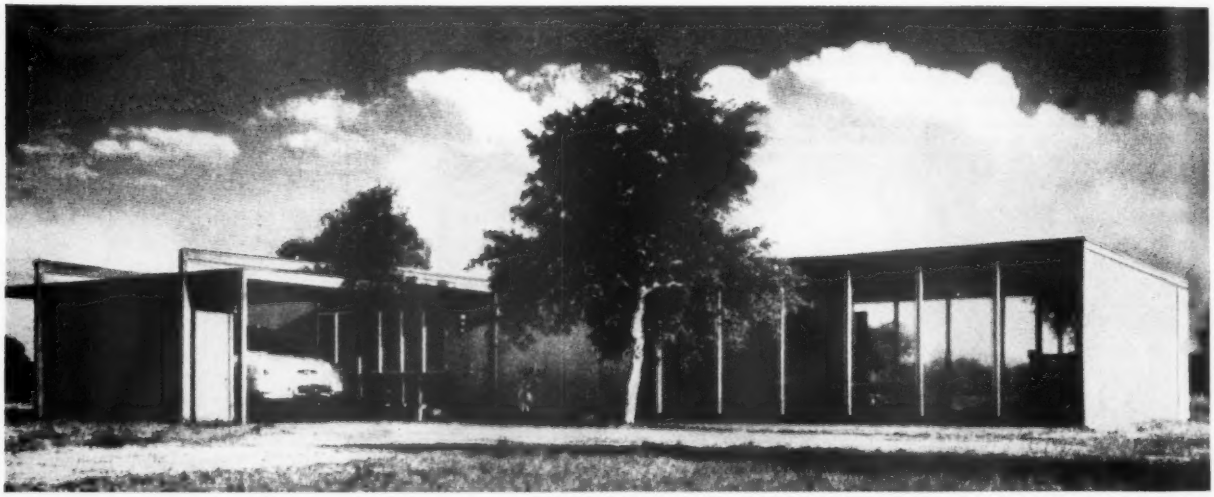
The Climate of Industrialised Building. The movement towards industrialised building may be expected to involve other changes besides those in technique. The same pressures which influence the design of buildings also stimulate attention to subjects which are otherwise merely of general interest. In this way the whole climate of the building industry is affected.

If we examine the subjects which have recently been under active discussion, it may help us to imagine what the climate of industrialised building might be like. Some of these subjects are briefly described in the following paragraphs.

Modular Co-ordination. A subject which is attracting much attention, and on an international scale, is modular co-ordination. The nearest we have ever come to industrialised building in this country are the 'closed' systems of construction, designed mainly for schools. These are sets of components which can be assembled together in enough different ways to meet the requirements of one particular building type. Unfortunately, the components of one system will not fit together with the components of another. The designer of the building has therefore to choose between designing within the limits of one set of components and combining them with conventional building.

Within an industrialised building industry, components would be designed to be interchangeable with others made in other factories. They would also be suitable, not just for one building type, but for a wide range of different uses. To make this possible, there would first have to be a

Experiments in Industrialised Building. (5) Alcoa Building, Pittsburgh. Erection of aluminium-faced curtain wall panel with pivoted window already in place. Architects: Harrison and Abramovitz



Experiments in Industrialised Building. (6) House at Sarasota, Florida, designed for factory production using structural honey-comb panels. Architect: Paul Rudolph

['*House and Home*', *January* 1955

dimensional framework, devised in such a way that the minimum number of different sized components could be arranged in the maximum number of different ways. In other words, modular co-ordination is a prerequisite of industrialised building.

Cost Control. The building industry is often criticised for not being able to forecast the cost of a building with any real accuracy. The difficulty is not in manufacture, because the cost of the materials is known when they reach the site. It lies in the assembly because in conventional building no one can be quite sure how much materials will be used or how long it will take to put them together. Cost control has long been a subject of anxiety in the building industry, and there is no reason for thinking that future clients will be less particular with their finances than they are now.

Industrialised assembly would tend to proceed by elements rather than by trades. The site would become a place for handling large components which would form the elements of frame, wall, floor, roof, partition and so on. The men on the site would become what William Tatton Brown has called 'assembler-jointers' rather than tradesmen. This kind of assembly would lend itself to the control of cost by elements rather than by division into trades.

Recent discussion has centred on cost analysis which offers just such a basis for cost control. It is being actively examined in relation to conventional building, but the implications of applying it to traditional assembly are too complex to be discussed here. It seems however that a method of costing by elements would naturally suit industrialised building and would lead to a surer control of costs than has hitherto been possible.

Work Study. Work study is the study of manufacturing and assembly processes to find out if they are being done efficiently. As a rule, the process is first considered as a whole and then broken down into jobs which can be examined individually. The work study expert tries to answer such questions as 'What is the operative really doing?', 'Is he using his energy in the most economical way?', 'Is the machine the right one?', 'How long does the job take?' and so on.

In most industries, work study is indispensable to enlightened management because it can suggest improvements in production methods. It can ascertain how long a job ought to take and, consequently, how much it ought to cost. Work study has not been applied to the assembly process of conventional building to any great extent. The end products of building are, of course, seldom the same twice. But in conventional building even the individual assembly operations are seldom the same twice. Any resistance to work study, on the part of management and men, may therefore be viewed with some sympathy.

Industrialised building however would offer much greater opportunities for work study, and could not achieve its full potential without it. The off-site fabrication of building components would tend to become more complex, and so the disposition of the men, material and machines engaged in making them would become more critical. Manufacturers would look to both the designer and to the production engineer to make sure that the fabrication of components took place in the most efficient manner. Site assembly would become simpler, would be less affected by the weather, and there would be less waste. Consequently site operations could be more precisely defined, more operations would tend to repeat themselves, and as the time taken became more predictable, work study would become more effective.

In an industrialised building industry the control of building sites would require a relatively high degree of administrative skill, and it would become more appropriate for managements to adopt the most up-to-date practice in organisation and method.

Research and Development. Building research has tended, not unnaturally, to concern itself with conventional building. It has done a great deal to improve the efficiency of traditional assembly methods by the use of cranes, hoists and the like, and it has made innumerable contributions to manufacturing processes. It has also provided the designer with a wealth of new knowledge to aid him in controlling physical environment.

During the transition from conventional to industrialised building, research and development would tend to be directed towards the study of the prefabrication of

building components in all its aspects. In addition to the fundamental research which would be required, there might be a place for some kind of centralised development agency to foster the application of this research. The removal of certain processes from the site to the factory might create a demand for entirely new materials or finishes, in the same way that higher temperatures in aircraft engines have created a demand for hitherto unknown alloys. Detailed investigations would be expected to answer such questions as 'Which operations can reach maximum efficiency on the site, and which can be better done elsewhere?', 'How can services be prevented from tangling up the assembly process?', 'What is the optimum size, shape and weight of a particular component?', How can it best be protected during transport to the site?'

Generally speaking it is the industries which are the most technically advanced which spend the most money on research and development. As building moved towards industrialisation, research and development could be expected to grow in importance, eventually becoming recognised as the spearhead of the industry's progress.

Closer Co-operation. Industrialised building would tend to draw the various sides of the industry closer together. The architect as a designer of building components would become a more important figure. He would need to work closely with the component manufacturer, either as a consultant or as a member of his firm. The architect as a designer of complete buildings would need to co-operate in greater detail with the assembly contractor and his sub-contractors. The efficiency of the assembly operation would depend on complete understanding between them. The quantity surveyor would be concerned with forms of contract which would allow consultation to take place between all the parties at the design stage. His control of cost would be allied to the designer's skill and the contractor's work study, to bring the cost of the building within the client's budget and to keep it there.

Building today is carried out by a large number of craft trades and a smaller number of professions, grouped together, but divided by traditional practices and loyalties. A tendency towards integration, with a consequent adjustment of individual functions, would be one of the characteristics of becoming an industry in the true sense of the word.

The Pattern of Change. We have briefly examined modular co-ordination, cost control, work study, research and development, and closer co-operation. All these subjects seem to grow in significance when related to industrialised building and, by virtue of this, they are all linked with each other. Although they are at present being studied mainly in terms of conventional building, they also suggest a direction of thought towards industrialisation. At a time when such subjects tend to be discussed separately from one another, it may be helpful to see them in a wider context and as part of the overall pattern of change.

Earlier we noted some of the reasons for the trend itself, and some of the pressures to which the industry is subjected. In practice, of course, it is the economics of each particular case which ultimately determines the rate of change. Design must always take into account the prevailing circumstances and the resources available at the time. No one knows to what extent conditions in the future will be favourable for industrialisation. Nor can anyone tell in advance which of the infinite number of possible combinations of conventional and industrialised building may prove to be fruitful. Nevertheless, the acceptance of a trend towards industrialisation might be a positive step forward. As an industry we are not working in isolation. All the various pressures, to which we referred earlier, are associated with the country's need for higher productivity. The pattern of change in building is part of a larger national pattern. When policies are so often decided on a short-term basis, and tend to be changed with every fluctuation in the economic situation, it might be better for the country as a whole, as well as for building, if the industry could display a somewhat more explicit sense of direction.

Correspondence

POST-WAR CHURCH BUILDINGS EXHIBITION

The Editor, R.I.B.A. Journal

DEAR SIR,—As many of your readers already know, the above exhibition is now on tour, and is proving very popular in different parts of the country. It has already visited Nottingham, Coventry, Ipswich, York, Cardiff, Liverpool and Manchester, and is booked to visit Sheffield, Derby, Newcastle upon Tyne, St. Albans, Canterbury, Rochester, Reading, Bristol, Plymouth and Norwich. It may also go to Scotland, but this is not yet definite.

In spite of the large number of towns which it is visiting, it may nevertheless be impossible for some of your readers who are interested to see it. For the benefit of these people, and others, I am writing to point out that copies of the printed catalogue are obtainable from me at the address given below at a cost of two shillings each. These contain an introduction by Mr. George G. Pace, F.S.A. [*F*], of York, and include particulars as to the architect, seating capacity, and cost of each of the 57 church buildings included in the exhibition.

Yours faithfully,

JOAN M. PETERSEN,
Librarian,
Central Council for the Care of Churches,
*Fulham Palace, London, S.W.*6

HUNGARIAN ARCHITECTURE

DEAR SIR,—I read with great interest the article and letters about this subject recently published in your JOURNAL, and now may I be permitted to supply a few footnotes to the controversy.

Mr. Goldfinger states that the pre-war Hungarian governments did not recognise modern architecture, they supported an official eclectic style and one gets the impression that they wanted to convert architects to an official line.

Had they wanted to do this they could have followed two courses: one, the education of a new generation of architects who accepted the official style; secondly, that which Mr. Goldfinger actually mentions, to commission only those architects who already follow it.

Before 'liberation' I was assistant lecturer at the Budapest Technical University (the only school which gave professional qualification) and can testify that the various governments did, in fact, influence the education of architects, but did exactly the opposite of what we would have expected from reading Mr. Goldfinger's article.

Leading teachers elected between the wars (professors of design and structures) were faithful followers of the progressive spirit both politically and architecturally: so much so that they kept their positions even after the war. Accordingly in the university there was never any doubt about following the contemporary style and rejecting eclecticism or any other formalism.

In the case of active architects the situation was similar. Already at the beginning of the 'thirties practically all the public buildings were designed in contemporary style. The governments of those days wanted to assert their independence from the imperial Austrian spirit incorporated in old-established institutions and persons. In architecture this spirit manifested itself in neo-baroque. I do not know of any architect who started his career after 1920 and made his reputation on this or any other outmoded style. In the early 'thirties even Wälder, leader of the classical revival, had to revise his doctrines in order to get a word in the shaping of the new centre of Budapest (municipal blocks of flats at the junction of Királyn and Erzsébet Körút).

These things are well known to all familiar with life in Hungary between the two wars. Even the preface of the book reviewed states that though one direction of Hungarian architecture was traditional (that sponsored by the State) the other followed the spirit of Weimar and the style of Bauhaus. Following this we read: 'The majority of Hungarian architects immediately before the liberation followed the latter way. . . . It is no accident that after liberation they started their activity in this spirit'.

If this full-blooded Communist article speaks about duality in style only in Weimar times we can safely assume those times as the limit of this duality. And if the book cannot state that the 'liberation' improved the face of Hungarian architecture we must at least believe that it has not done so. It is hard to imagine what made Mr. Goldfinger outbid the author of this preface, who already toes the party line to perfection.

Hungarian governments, as far as architecture is concerned, were not fascist

or semi-fascist (I wonder what this casual adjective means exactly). They had in fact no official policy in this field. After cutting down the Hapsburg-inspired neo-baroque, they left architecture to go its own way.

When Mr. Goldfinger wants to perpetuate a misstatement, it is a rather weak argument that some other people do the same. And even more so, as he claims authority on this subject.

Yours faithfully,

E. HÉVÉZI

Practice Notes

Edited by Charles Woodward[*A*]

NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY. At the meeting of the National Joint Council for the Building Industry held in London on 9 January the Council found that in accordance with the industry's sliding scale agreement based on the retail prices index an increase of 1*d.* per hour became due and will operate from 4 February.

The application by the National Federation of Building Trades Operatives for an additional increase in building wages of 4*d.* per hour was referred for further consideration to an *ad hoc* committee after both sides of the Council had submitted evidence.

Other applications, relating to overtime rates, travelling rules, shift rates for watchmen, wage rates for benders and fixers, pipe-jointers and pipe-layers, and tool allowances for bricklayers and masons, were referred to appropriate committees of the Council for further examination.

A decision of the Council to extend the guaranteed weekly minimum payment from 32 hours to 36 hours is to take effect from 1 April next.

The new rates are as set out in Table I.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Clean Air Act 1956. The Ministry have issued a Memorandum on the provisions of this Act which can be obtained at H.M. Stationery Office, price 8*d.* net. An Appendix contains notes in respect of applications for approval to new furnaces.

Table I

NEW RATES PER HOUR
(As from Monday 4 February 1957)

1. CRAFTSMEN and LABOURERS

	London		Grade		Liverpool District
	Inner	Outer	A	A1	
	s. d.	s. d.	s. d.	s. d.	s. d.
Craftsmen	4 6	4 5½	4 4½	4 4	4 6
Labourers	3 11½	3 11	3 10	3 9½	3 11½
Watchmen	London and Liverpool 24*s.* 3*d.* per shift			Provinces 23*s.* 0*d.* per shift	

An Amendment to Model Byelaws, series IV Buildings (1953 Edition) has been issued, obtainable at H.M. Stationery Office, price 2*d.* This byelaw is in relation to heating and cooking appliances in new buildings.

A circular issued by the Ministry states that 'In smoke control areas, grates and other appliances in which smokeless fuels cannot be burnt satisfactorily will have to be altered or replaced. In houses, except those started after 5 July 1956 (the date on which the Act was passed) 70% of the cost of the necessary adaptations, as approved by the local authority, will be borne by the local authority and the Exchequer. Local authorities will also be able to make grants towards the cost of adaptations in churches, chapels and charitable institutions.'

The memorandum recommends local authorities before making a smoke control order to carry out a detailed survey of the area concerned and to seek public co-operation by house-to-house visits, public meetings and exhibitions.

All furnaces installed in future, whether in smoke control areas or not, must be designed so as to minimise smoke, and notice of intention to install any new furnace must be given to the local authority.

Further provisions of the Act, which deal with dark smoke and emissions of grit and dust from industrial chimneys, will be brought into force at a later date, probably in the earlier part of 1958.

WAR DAMAGE PAYMENTS. The Commission's Work in 1956. The War Damage Commission paid out £25 million during 1956 compared with £27½ million in 1955 and £32 million in 1954. The average weekly rate of payments in the last quarter of 1956 was £483,000.

The Commission paid 14,115 'cost of works' claims for repairs during the year, and made 5,405 payments on account or as instalments. The amount involved was £21½ million of which about £3½ million was for the repair and rebuilding of houses. Other principal items were: commercial buildings, £6½ million; factories, £3½ million; churches, £3¾ million; shops, £1¾ million.

The average amount of each claim paid during 1956 was £1,520 compared with £1,070 in 1955 and £700 in 1954.

Value payments amounted to £3½ million of which £632,000 related to houses.

Greater London's share of the total was £15 million.

Total war damage payments by the Commission now amount to £1,199 million in 4,698,000 separate payments. Contributions by property owners during and after the war amounted to nearly £200 million.

The details of amounts paid by the Commission during 1956 and the totals paid or agreed up to 31 December 1956 in the cases of certain non-commercial buildings are set out in Table II.

Table II

	Totals paid or agreed up to 31.12.56
	£
The Inner Temple ..	699,570
The Middle Temple ..	338,620
The Guildhall	407,301
Civic Centre, Southampton	260,000
Guildhall, Portsmouth ..	600,000
Llandaff Cathedral, Cardiff	100,000
St. Davids Cathedral, Cardiff	110,000
Coventry Cathedral ..	1,050,923
Corn Exchange Buildings, Liverpool	511,200

BUILDING CONTRACTS IN SCOTLAND. Firm Prices for Materials. New building contracts should continue to be on a firm price basis for materials. This is recommended in a circular issued by the Department of Health for Scotland today to all local authorities and Regional Hospital Boards.

The circular refers to recent representations made to the Secretary of State by the Scottish National Building Trades Federation (Employers) and the Scottish Federation of Plumbers' and Domestic Engineers' (Employers) Associations about the effect of the increased price of petrol and oil on building contracts.

'The Secretary of State has considered these representations, but, so far as new contracts are concerned, sees no ground for departing from the recommendation in D.H.S. circular No. 59/1954 that the price variation clause for materials should ordinarily be omitted.'

Dealing with existing contracts the circular says that it is, of course, for each local authority to consider what they will do if a contractor claims for additional expenditure—'The settlement of any question arising from the terms of a contract is essentially a matter for the parties to the contract'.

'It may, however, help the local authority to know that the Secretary of State has had the matter under consideration in relation to contracts to which he is a party and which were entered into before account could be taken of the increase in the price of petrol and oil on 5 December 1956.'

'In the case of such contracts the

Secretary of State will be prepared to consider making an *ex gratia* payment to the contractor, but only if it can be proved that, owing to increases in costs in consequence of present economic circumstances, a contractor has made an overall loss on the contract (as distinct from a loss of profit) and has suffered undue hardship as a result.' (10 January 1957.)

LAW CASES

A. R. Wright & Son Ltd. v. Romford Borough Council. Contract not under seal. Contractors were engaged by the Borough Council to demolish buildings. There was an agreement in writing signed by the Council's engineer and surveyor but it was not under seal.

The contractors sued the Council for damages for breach by repudiation of the contract, but the Council contended that as they were a body corporate and the agreement was not under seal it was not binding on them.

The contractors contended that if a contract was made in accordance with the standing orders of a corporation and was signed by someone authorised by the standing orders it was valid notwithstanding the absence of a seal.

The Court held that the case did not fall within any of the exceptions to the common law rule that a contract not under seal was enforceable neither by nor against a corporation, and there were no words in the Local Government Act 1933, section 266, which said that if a corporation complied with their standing orders a seal was no longer necessary. It was also held that the Law of Property Act 1925, section 74(2), had no application to the present case. It followed therefore that the agreement was not binding on the corporation.

Judgment was given for the defendants. [(1956.) 3 All E.R. 785.]

(*Note.*—This case emphasises the necessity for an architect's contract with a corporation to be under seal.)

Hackney Borough Council v. English. Combined drain—liability to repair defects. This was an appeal to a Divisional Court of the Queen's Bench by the Borough Council from a decision of the Metropolitan Magistrate that the Council were not entitled to serve notice under section 40 of the Public Health (London) Act 1936, in respect of a drain serving several properties, upon Mr. C. F. English, owner of one of the properties served by the combined drain.

The Council made an inspection and discovered a defect in the drain where it passed through one of the properties served by the combined drain. This property was not the property of Mr. English, the Respondent.

The Council contended that it was their duty to serve a notice on all the owners or occupiers of the houses served by the combined drain to carry out the necessary repairs. Then, if it was left to the Council to do the repairs, the Council could apportion the cost between the owners.

The Respondent contended that the notice to repair the combined drain could only be served on the one owner on whose land the inspection was made, and it was then left to that owner to take steps to get the other owners to share the cost.

In dismissing the appeal the Court held that the notice was to be given to the person in a position to carry out the repairs. He was entitled to carry out the work himself and was under no obligation to let the Council do it. The Council had no statutory right to apportion on their own account the cost of the repairs between the owners of premises served by the combined drain. Provision was made in the Act for a person served with a notice to go to the magistrate and ask that others benefiting from the work should pay all, or share, the cost. The machinery of the Act made the person on whose land the defect was discovered the person by whom the work was to be carried out.

The appeal was dismissed, costs being awarded to Mr. English against the Council. (THE ESTATES GAZETTE, 2 February 1957.)

Book Reviews

Schools for the New Needs. *An Architectural Record Book.* 12 in. xii + 312 pp. incl. plans and illus. New York: Dodge Corpn. 1956. $9.75.

This book, compiled by the editors of ARCHITECTURAL RECORD, consists of articles on schools published in the last few years. For the greater part these are short descriptions accompanied by plans and photographs, while a few are reports of studies on the costs of individual schools. At first sight this book appears to be yet one more collection of pictures, without a theme to give it significance, and good though the photographs may be, architects today have a surfeit of such fare.

The extensive post-war school building programme in America has followed the same pattern as our own, first building for the younger children and now the pressing need for secondary schools. The present stage of this programme is reflected in the headings of the three sections of the book; Cost Studies, Elementary Schools and Secondary Schools. The general impression of the elementary schools, given by the articles in the first two sections, is that planning problems are no longer matters for discussion, but that those of lighting and reduction in costs are to the fore. Work is being carried out in various parts of the country with little attempt at co-ordination, and seems at a rather early stage in comparison with similar projects in this country.

The planning of the new secondary schools, on the other hand, is treated far more broadly. Educators and administrators as well as architects discuss the problems. The articles in the third section portray the present secondary school scene in America and present at the same time interesting designs of schools which accommodate a large number of children. Although the American system of secondary and higher education differs in many ways from our own, there are ideas in these designs which might be applied both to our large comprehensive schools and also to some of our further education colleges, where vocational training is given. In response to new methods and forms of training for this technical age, American architects have produced plans and created environments which are worthy of study.

The photographs in this book are of high quality. There are as many views of the interiors as of the outsides of the buildings, and children at work or play are to be seen in a great number of the photographs. In the general views there is often attractive planting and in the closer views of the buildings there are many examples of the interesting use of materials and of good design. Another interesting feature to be studied is the design of the fittings and furniture. Clearly drawn plans and sections are given of each school.

BARBARA M. PRICE [A]

Building Techniques for Domestic and Similar Structures, by *Edwin Gunn.* 3rd ed. 10 in. 191 pp. incl. illus. Iliffe & Sons. 1955. 21*s.*

Although this welcome new edition of Edwin Gunn's *Modern Building Technique* includes references to the latest B.R.S. Digests and British Standards, there is no mention of, for example, floor heating or ring circuits, and the illustrations presuppose a traditional house with brick walls and tiled roof. Is it significant that the word 'modern' has been dropped from the new title?

Apart from such limitations, this book is excellent. The author is particularly considerate of the architect who has to design a small house on a strict budget; and he passes on an enormous amount of practical experience. The index is less detailed than it might be. M. W.

Chelsea. From the Five Fields to the World's End, by *Richard Edmonds.* 18 drawings by Dennis Flanders. 8¾ in. (6) + 133 pp. Phene Press. 1956. 12*s.* 6*d.*

Above all other boroughs in London, Chelsea can show a striking continuity in residential popularity. In art and letters it has always been a stronghold of the leaders, and if the intellectual quality now live in mews flats instead of riverside mansions, it matters little. The borough is still a place where low, high and middle brows can mingle tolerantly and enjoy living. Mr. Edmonds's book, enlivened by the drawings of Dennis Flanders, is a kind of alphabetical companion to the history of Chelsea's streets and buildings. It should prove most useful. J. H.

Portmeirion Still Further Explained, by *Clough William-Ellis.* 8th ed. 7¼ in. 10 pp. + 36 pls. Birmingham: Kynoch Press. 1956. 2*s.* 6*d.*

A most attractive, skilfully arranged and informative booklet on the celebrated seaside folly overlooking Cardigan Bay.

R.I.B.A. Prizes and Studentships 1956–1957

R.I.B.A. Intermediate Design Prize: A Certificate and £100 for the Study of Contemporary Architecture in Europe. Subject 'An Anglican Parish Church in a New Housing Area'. Prize awarded to P. A. Crighton, 20 Keble Road, Knighton, Leicester (School of Architecture, Leicester College of Art). Certificates of Honourable Mention to F. D. Parkes [*Student*], Cheshire Cheese, Wheatley Lane, Doncaster (The Nottingham School of Architecture) and J. R. Peverley [*Student*], 257 Folkestone Road, Dover (School of Architecture, Canterbury College of Art).

Victory Scholarship: A Silver Medal and £150 for the Advancement of Architectural Education. Subject 'A Club House of a Sports Centre for an Industrial Firm'. Prize awarded to Fred Woodhead [*Student*], 24 Longley Crescent, Sheffield, 5 (Department of Architecture, University of Sheffield). Certificate of Honourable Mention to J. H. Johnson [*Student*], 7 Milton Avenue, Highgate, London, N.6 (Department of Architecture, the Northern Polytechnic, London).

R.I.B.A. Silver Medal for Measured Drawings and £75. Awarded to S. A. Dunnings [*A*], 219 Gudge Heath Lane, Fareham, Hants. (School of Architecture, Southern College of Art, Portsmouth).

R.I.B.A. Silver Medal and £50 for an Essay. Awarded to Cecil Stewart, A.M.T.P.I., A.I.L.A. [*F*], 9 Berkeley Mansions, Fielden Park, Manchester, 20 (School of Architecture, Edinburgh College of Art). Certificate of Honourable Mention to J. C. T. Warren [*Student*], 26 Eldon Place, Newcastle upon Tyne, 1 (School of Architecture, King's College, Newcastle upon Tyne).

R.I.B.A. Rose Shipman Studentship Trust: For the Study of Architecture. Studentship of £450 awarded to Iain Langlands [*A*], Peakletts, Upper Tilton Farm, Firle, nr. Lewes, Sussex (Department of Architecture, The Northern Polytechnic, London).

R.I.B.A. Alfred Bossom Research Fellowships £250: For Post-Graduate Research. Awarded to Dr. W. A. Singleton, Ph.D., F.S.A., A.M.T.P.I. [*F*], Foxholes, Chelford Road, Prestbury, Cheshire (Liverpool School of Architecture, University of Liverpool).

Neale Bursary: A Certificate and £125: For the Measurement of Old Buildings. Awarded to H. G. Arnold [*A*], 107 Peppard Road, Caversham, Reading, Berks. (Liverpool School of Architecture, University of Liverpool).

Special R.I.B.A. Henry L. Florence Research Scholarship: 1956. Awarded to J. W. Fletcher [*A*], Brackenbury House, Breakspear Road South, South Harefield, Middx. (Architectural Association, School of Architecture, London).

Hunt Bursary: A Certificate and £95 for the Study of Housing and Town Planning. Awarded to A. E. Weddle [*A*], Department of Civic Design, University of Liverpool, 76 Bedford Street South, Liverpool, 17 (School of Architecture, Kings College, Newcastle upon Tyne).

Owen Jones Studentship: A Certificate and £250. For the improvement and cultivation of knowledge of the successful application of colour as a means of architectural expression. Awarded to M. J. Blee [*A*], Tillington Rectory, Hillside, Tillington, nr. Petworth, Sussex (Department of Architecture, The College of Art and Crafts, Brighton). Certificate of Honourable Mention to M. J. Dixon [*A*], 81 Peperharrow Road, Godalming, Surrey (Department of Architecture, Kingston-upon-Thames School of Art).

Athens and Delissa Joseph Bursaries: £175 for Study at the British School at Athens. Awarded to William Taylor [*A*], School of Architecture and Building, Cowley Place, The Plain, Oxford (School of Architecture, College of Technology, Art and Commerce, Oxford).

Rome Scholarship in Architecture 1956. £400 per annum for two or three years' study and research at the British School at Rome. Awarded to Kevin Patrick Campbell [*A*], 66 Beechwood Avenue, Londonderry, N. Ireland (Liverpool School of Architecture, University of Liverpool).

Ashpitel Prize 1956 and **Sir Banister Fletcher Prize 1956.** Awards to be announced later.

R.I.B.A. Silver Medal and £10 in Books for Students of Schools of Architecture Recognised for Exemption from the Final Examination. Awarded to D. A. Saxon [*Student*], 9 Kirkstall Road, Streatham Hill, London, S.W.2 (Welsh School of Architecture, College of Technology and Commerce, Cardiff). Certificate of Honourable Mention to H. W. Booton [*Student*], Myton House, Ingleby Barwick, nr. Stockton on Tees (School of Architecture, King's College, Newcastle upon Tyne).

R.I.B.A. Bronze Medal and £10 in Books for Students of Schools of Architecture Recognised for Exemption from the Intermediate Examination. Awarded to E. L. Preston, Birmingham School of Architecture, Margaret Street, Birmingham, 3 (Birmingham School of Architecture). Certificates of Honourable Mention to James A. Gray, School of Architecture, Edinburgh College of Art, Lauriston Place, Edinburgh, 3 (School of Architecture, Edinburgh College of Art), and Anthony Eardley [*Student*], 15 Grove Court, Drayton Gardens, S.W.10 (School of Architecture, The Architectural Association, London).

Archibald Dawnay Scholarship Trust Prizes 1956, Three Scholarships of £60 each for the Advanced Study of Construction. Awarded to J. H. Williams [*Student*], 136 Camp Lane, Handsworth, Birmingham, 21 (Birmingham School of Architecture); J. A. Dalton [*Student*], 11 Chiltern Way, Woodford Wells, Essex (School of Architecture, The Architectural Association, London): Anthony Eardley [*Student*], 15 Grove Court, Drayton Gardens, S.W.10 (School of Architecture, The Architectural Association, London).

R.I.B.A. Henry Jarvis Studentship at the School of Architecture, The Architectural Association 1956, £50. Awarded to D. P. Cole [*Student*], Charters, 2 Second Avenue, Chelmsford, Essex.

R.I.B.A. Howard Colls Travelling Studentship at the Architectural Association 1956, £40. Awarded to Malcolm Higgs, 26 Ivor Place, London, N.W.1.

R.I.B.A. Donaldson Medal at the Bartlett School of Architecture, University of London. 1956. Awarded to M. R. Evans [*Student*], 40 Egerton Gardens, Hendon, N.W.4.

R.I.B.A. Prize for Art Schools and Technical Institutions with facilities for the Instruction of Intending Architects (£10 in Books) 1956. Awarded to G. C. Pink [*Student*], 144 Newmarket Road, Cambridge (Cambridgeshire Technical College and School of Art).

R.I.B.A. Prizes for Public and Secondary Schools. (*a*) *Essays.* Prize of £5 5*s.* 0*d.* and certificate to D. W. Urwin of St. Olave's Grammar School, London, for his essay on The Festival Hall 1951. (*b*) *Sketches.* (1) Prize of £5 5*s.* 0*d.* and certificate to C. F. Jackson of the Grammar School, Whitehaven, for his drawings of The West Cumberland Farmers' Trading Society Offices. (2) Prize of £5 5*s.* 0*d.* and certificate to R. G. Attree of St. George's C.E. Secondary Boys' School, Ramsgate, for his drawings of St. James' Church, Westgate. (3) Prize of £5 5*s.* 0*d.* and certificate to D. Tuckley of Northampton Grammar School, for his drawings of Peterborough Cathedral.

London Association of Master Stonemasons Prize: A Certificate and £50, for the Study of Natural Stonework. Prize of £15 15*s.* 0*d.* to Miss J. M. Price [*Student*], 35 Campion Road, Putney, S.W.15 (R.W.A. School of Architecture, Bristol, and the School of Architecture, The Polytechnic, Regent Street, W.1.). Prize of £15 15*s.* 0*d.* to Michael Blyth, 82 Ewell Park Way, Ewell, Surrey (Department of Architecture, Kingston-upon-Thames School of Art).

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts. Telephone: Garston 4040.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow. Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks. Telephone: Princes Risborough 101.

*The Director, The British Standards Institution, 2 Park Street, London, W.*1. *Telephone: Mayfair* 9000.

*The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.*1. *Telephone: Museum* 5400 (10 *lines*).

*The Director, The Scottish Building Centre, 425–7 Sauchiehall Street, Glasgow, C.*2. *Telephone: Douglas* 0372.

Terlite Lightweight Aggregate. It has been rightly said that pulverised fuel ash from power stations can be most economically used for brick or block-making if it is done near the station. Although the Cementation Company Ltd. do not make bricks or blocks they have recognised the value of proximity by erecting two kilns actually at the Battersea Power Station, for making a lightweight aggregate to which they have given the name Terlite. The fuel ash is pelleted and sintered and may be had in three grades; $\frac{3}{4}$ in., $\frac{3}{8}$ in., and $\frac{3}{16}$ in. down, which are suitable sizes for roof and flooring members and screeds. Tests carried out with blocks made with Terlite have shown strengths up to 3,000 lb. per sq. in., with moisture movement and drying shrinkage down to 0·025 per cent.

In the production process all the carbon is used and the high temperature drives off the sulphur, so the resulting product is free from combustible and sulphurous matter. Typical weights are 48 lb. per cu. ft. for the large grade, 50 lb. for the medium, and 52 lb. for the fines. The company state that because of the low density of Terlite, concrete made with it should have a heat conductivity of about a quarter of that of traditional concrete; further, that Terlite gives a good bond for plaster and will not soak the water out of it; that it is nailable and can be sawn.

Further information may be obtained from the Cementation Company Ltd. (ref. V.C.) 20 Albert Embankment, London, S.E.11. Telephone RELiance 7654.

MK Adjustable Electric Light Switches. To the sensitive eye a switch cover plate that is not quite 'straight' can be very annoying, but in fairness to the electrician it should be admitted that to set a switch box perfectly straight is not quite so easy as it might seem. Messrs. MK Electric Ltd. have got over the difficulty simply and conveniently.

In the April 1955 issue of the JOURNAL a note was given of the MK Gridswitch system, in which up to eight switches can be accommodated in only three sizes of boxes. In these boxes the company have now added a little fitment on each side in the form of a holed arm that slides up and down in a containing bracket, so that if the box is out of square the fixing screws of the cover plate are screwed hand-tight into the holes in the adjusting arms and the plate is twisted sideways until it is level; this movement being permitted by the adjusting arms. The fixing screws are then tightened to connect the cover plate rigidly to the box.

The address of the company is MK Electric Ltd., Wakefield Street, Edmonton, London, N.18.

Corrosheath Aluminium Jacketing. In conjunction with Messrs. Venesta Ltd., Messrs. Corrosheath Ltd. have brought out Corrosheath aluminium jacketing for wrapping over the insulation coverings to steam, hot water, chemical and oil pipes. It is made in rolls 100 ft. long by 24 in. wide in hard-tempered aluminium alloy and is corrugated to give extra strength. One form of the jacketing has an asphaltic moisture barrier of kraft union waterproof paper to prevent corrosion where the insulation material is alkaline, but where corrosion is not likely to occur the jacketing can be obtained without the moisture barrier. Aluminium straps secure the jacketing after it has been cut to size and wrapped round the pipe insulation.

Advantages claimed are that the jacketing prevents the insulating material getting torn or being affected by moisture; that the high reflectivity and low emissivity of the foil improves the thermal efficiency of the insulation, and that it is flame-proof.

Inquiries should be addressed to Messrs. Venesta Ltd., Vintry House, Queen Street Place, London, E.C.4.

Hydrol D.B. Silicone Solutions. The water repellent properties of the silicones have been brought so much to public notice recently that even a layman might expect them to be used in building, as indeed they are, particularly for preventing the penetration of moisture through brick walls. Messrs. Hydrol Cement Waterproofers Ltd. have put on the market two solutions, Hydrol DB 29 and DB 30, for application to brickwork, concrete, real and artificial stone, cement painted or rendered surfaces; the solutions being manufactured in accordance with the recommendations of Messrs. Midland Silicones Ltd.

The company state that their DB solutions penetrate the surface to a depth of about $\frac{1}{4}$ in. and line, but do not choke, the pores and minute voids with an invisible water-repellent film which prevents the ingress of water but still allows the free passage of air and vapour. Thus the treated material is able to 'breathe' and dry out naturally. The solutions do not withstand hydrostatic pressure and therefore are not suitable for underground work. It is further claimed that the natural colour of the surface is not affected, that the solutions are a protection against efflorescence, sweating and general discoloration, and tend to safeguard against frost damage.

Hydrol DB 29 silicone solution contains a silicone content in a hydrocarbon solvent and is at first mildly inflammable, but as soon as it has been applied the solvent rapidly disappears, leaving only the non-inflammable inert silicone deposited in the pore of the material. Hydrol DB 30 does not contain a hydrocarbon content and is therefore non-inflammable. It is the more suitable treatment for limestone.

Further information on these solutions may be obtained from Messrs. Hydrol Cement Waterproofers Ltd., of 147 Bollo Bridge Road, London, W.3. Building Research Station Digests Nos. 41, 47 and 90, especially No. 90, contain relevant information on the subject.

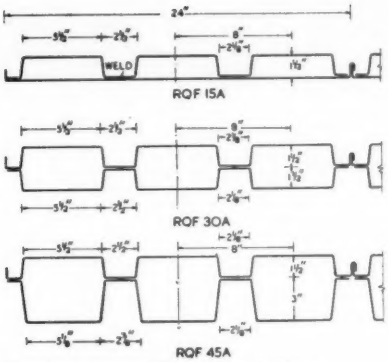
Tylex Wall Finish. Messrs. Tretol Ltd. state that recent research has proved that tiled walls are by no means completely hygienic, as the joints between the tiles harbour dirt, germs and bacteria which normal washing cannot eradicate. This is another instance where research has upset accepted ideas, as glazed tiling has been considered one of the most hygienic forms of wall finish for the appropriate parts of hospitals, schools, food factories and similar industrial buildings, and if it is not satisfactory from that point of view, with what shall we replace it?

Messrs. Tretol suggest their Tylex, which can be applied like a paint and produces a glazed wall surface without joints. The company claim that the hard surface resists abrasion and can be washed without losing its glossiness. The material can be used on old or new wall surfaces, and it is procurable in black, white, or one of 18 colours based on a selection from B.S. 2660: 1955, *Colours for Building and Decorative Paints*.

The address of Messrs. Tretol is Tretol House, The Hyde, London, N.W.9.

The Robertson Q-Floor. During the past twenty years more than 12,000 multi-storied buildings in the American Continent have incorporated Robertson Q-Floor construction—a system employing metal-coated steel cellular units as a load-bearing floor and over which concrete is poured as a base for the final floor surface. In the Robertson Q-Floor now marketed in this country the concrete is bonded to the steel cellular units, as will be described later. The functions of Q-Floor are two-fold—firstly to serve as a structural load-bearing floor and secondly to provide a series of electrical ducts at 8 in. centres over the entire floor area.

There are three types of Robertson Q-Floor to suit varying spans and loadings



The three types of Robertson Q-Floor

and each type is manufactured in units 2 ft. wide. The three Q-Floor units RQF 15A, 30A, and 45A, all consist of a top and a bottom section spot-welded together at 3 in. intervals along their length. In all types the top section has a ribbed profile and is 1½ in. deep. RQF 15A has a flat bottom tray and is suitable for spans up to 10 ft., at which the maximum loading is 124 lb./sq. ft.; RQF 30A has a 1½ in. deep ribbed bottom section and at a maximum span 15 ft. can take a loading of 73 lb./sq. ft.; RQF 45A has a 3 in. deep ribbed bottom section allowing a maximum span of 19 ft. and a loading of 70 lb./sq. ft.

At intervals along the Q-Floor units slots are punched in the compression flange of the top ribbed section and steel anchors are fed through these slots so that when the concrete is poured over the steel cellular floor they serve to bond the concrete topping to the steel Q-Floor units and the combined steel/concrete slab functions as a composite load-bearing floor. The minimum recommended depth of structural concrete topping is 1¾ in. and it should be of a quality to produce a strength in compression of 3,000 lb./sq. in. at 28 days. A ¾ in. screeding can be laid over the structural concrete to take the floor finish.

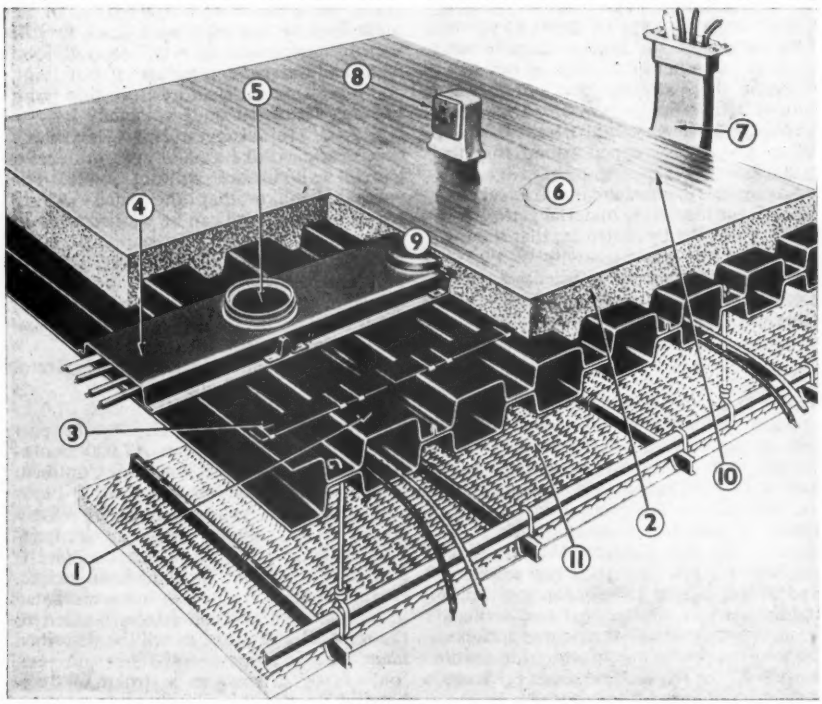
The steel Q-Floor units are in themselves lightweight and so on arrival at site bundles of them may be hoisted and laid between supporting beams with ease and speed. Once in position the ends of the units would be welded to the structural beams—if of steel—or if the beams are of concrete, to steel plates bedded therein; alternatively the units may be secured to concrete beams by a rapid hammer fixing.

Immediately the steel Q-Floor units are in position they form a working platform for other trades, and for stacking materials. Since the concrete topping can be laid at any time there is no time lost waiting for the concrete to set, and of course no formwork or loose planking is necessary. As the flooring is designed by Messrs. Robertson Thain Limited to suit the architects' plans, openings and so forth can be pre-arranged or if neccessity arises the steel floor units can be cut on site.

By the incorporation of certain electrical accessories the steel cells of Q-Floor may be used as a complete service for as many systems of wiring distribution as are necessary. Header ducts serve to bring wires from the distribution centres to the individual cells of the Q-Floor and are installed at right angles to the cells and are, of course, covered with concrete topping. They are constructed so that access can be gained to the cells from the top of the finished floor by means of junction units. When a lighting, power, or telephone outlet is required, wires are brought from the distribution centre, along the header duct, down into the Q-Floor cell, along this cell to the required position where a floor top is inserted to gain access from the floor surface to the top of the Q-Floor cell. A pedestal outlet is fixed to the top of the floor tap. These outlets can be removed when necessary and the hole in the floor blanked off. Where the exact positions of floor outlets are known at the time of construction, these can be installed before the concrete topping is placed. Complete isolation of distribution systems is accomplished by the installation of separate header ducts to the various distribution centres. Identity of the different systems is facilitated by clearly defined marker screws.

The advantages claimed for this flooring system may be thus summarised; ease of delivery and hoisting, as the units come in bundles containing on average 250 sq. feet and yet weighing no more than ¾ ton; the speed with which the units are laid enables other trades to get on with the job without delay, thus speeding completion of the building; easy and separate provision for electrical services and outlets, and for additional or altered points without having to break up the finished floor; ease of application of finished ceiling; reduction in the overall weight of the building, thus saving in foundations and structural framework.

For more detailed description of this Robertson Q-Floor, application should be made to Messrs. Robertson Thain Limited, Ellesmere Port, Wirral, Cheshire.



The Robertson Q-Floor. 1, cellular steel Q-Floor unit; 2, structural concrete topping; 3, bonding anchor; 4, header duct; 5, header duct junction unit; 6, tray containing floor finish covering junction unit; 7, rising connector between header duct and distribution board; 8, lighting, power or telephone floor pedestal outlet; 9, blanking-off disc over header opening; 10, floor finish; 11, suspended ceiling.

British Standards Recently Published

B.S. 2760: 1956. **Pitch-impregnated Fibre Drain and Sewer Pipes.** This Standard deals with pipes and fittings made of a preformed felted structure of cellulosic fibre impregnated under pressure with coal tar pitch or suitable bituminous compound. A range of pipes is covered from 2 in. to 8 in. diameter with suitable couplings and fittings. Price 4*s*. R.I.B.A. representative, J. S. Wyatt [*A*].

B.S. 1244: 1956. **Metal Sinks for Domestic Purposes.** This Standard has been revised to allow more scope in the choice of bowl sizes and the materials used in their manufacture. The bowl sizes are now based on minimum dimensions, but the overall frame sizes have not been changed; thus interchangeability of units is not affected. The Standard covers sinks of stainless steel, enamelled pressed steel and enamelled cast iron. Requirements are given for resistance of the enamel to abrasion, acids and alkalies. Price 3*s*. R.I.B.A. representatives, John Kemp [*A*] and A. H. Neave [*F*].

Notes and Notices

NOTICES

Sixth General Meeting. Tuesday 5 March 1957 at 6 p.m. The Sixth General Meeting of the Session 1956–57 will be held on Tuesday 5 March 1957 at 6 p.m. for the following purposes:—

To read the Minutes of the Fifth General Meeting held on 19 February 1957: formally to admit new members attending for the first time since their election.

Mr. G. A. Jellicoe, M.T.P.I., P.P.I.L.A. [*F*], to read a paper on 'Building in the Landscape'.

(Light refreshments will be provided before the meeting.)

Session 1956–1957. Minutes III. At a Special General Meeting held on Tuesday 8 January 1957 at 6 p.m., Mr. Kenneth M. B. Cross, M.A., President, in the Chair.

The President stated that the Special General Meeting had been called for the purpose of considering and, if thought fit, to pass the following Resolution:

'That the existing Leases of Nos. 66 and 68 Portland Place respectively, each dated the 3rd day of November, 1936, shall be surrendered to the Freeholders, and that the Royal Institute shall in lieu thereof enter into a fresh Lease of Nos. 66 and 68 Portland Place aforesaid in the form of a draft which has been approved on behalf of the Royal Institute and that the Council be and is hereby authorised to affix the Common Seal of the Royal Institute to the documents necessary to complete the transactions hereby authorised.'

The Resolution having been moved by Professor Basil Spence, O.B.E., A.R.A., A.R.S.A., the Hon. Secretary, and seconded by Mr. E. D. Jefferiss Mathews, O.B.E., A.R.I.C.S., the Hon. Treasurer, was put to the Meeting and was passed unanimously.

The Hon. Secretary announced that a Special General Meeting to confirm this Resolution would be held on Tuesday 5 February 1957 at 6 p.m., prior to the Ordinary General Meeting on that date.

The proceedings closed at 6.8 p.m.

Session 1956–1957. Minutes IV. At the Third General Meeting of the Session 1956–1957 held on Tuesday 8 January 1957 at 6.9 p.m.

Mr. Kenneth M. B. Cross, M.A., President, in the Chair.

The meeting was attended by about 200 members and guests.

The Minutes of the Second General Meeting held on Tuesday 11 December 1956 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President: *As Fellows:* J. E. Beardshaw, Vincent Burr, Vernon Helbing, J. E. Hopcraft, Ronald Jackson. *As Associates:* P. R. Ackroyd, F. C. Warren.

The Secretary read the Deed of Award of Prizes and Studentships made by the Council under the Common Seal. Mr. Reyner Banham, B.A., having read a Paper on 'Futurism and Modern Architecture', a discussion ensued and on the motion of Mr. John Summerson, C.B.E., B.A.(Arch.), F.S.A. [*A*], seconded by Mr. Ian M. Leslie, O.B.E., J.P. [*Hon. A*], Editor of THE BUILDER, a vote of thanks was passed to Mr. Banham by acclamation and was briefly responded to.

The proceedings closed at 7.55 p.m.

British Architects' Conference, Oxford 10–13 July 1957. The Conference at Oxford this year has been arranged out of term in order that accommodation at some of the colleges might be available and supplement the hotel accommodation in the city.

Members are advised to make their reservations as early as possible and they *must be made through the R.I.B.A.*

Women members of the Conference and married couples can be accommodated at Somerville College. Balliol College can take men and a few married couples, while St. John's College can take men only.

Particulars are given below of the hotels and colleges at which rooms have been reserved by the R.I.B.A., together with the charges. Members wishing to reserve accommodation must write to the **Secretary R.I.B.A.** giving the following information: (1) Accommodation to be reserved; (2) For whom required; (3) Period for which required; (4) Any preference as to hotel or college.

BRITISH ARCHITECTS' CONFERENCE, OXFORD 1957

Hotels at which block reservations have been made

Hotel	*Rooms Reserved*		*Charge Bed and Breakfast*	*Remarks*
	Double	*Single*		
Cotswold Lodge Hotel, Banbury Road	2	2	25/–	Garage space available
*Derbyshire House, 18 Rawlinson Road	1	–	17/6	No garage space available but ample free parking
Eastgate Hotel, High Street	2	6	25/–	Garage available within few yards
Hotel Ehrsam, Botley Road	5	–	23/6	Garage available
*Elms Hotel, Church Way, Iffley	4	2	17/6	Garage space but extra charge is made
Fox Inn, Boars Hill	3	2	22/–	Garage for 3 cars available
Golden Cross Hotel, Cornmarket Street	6	4	26/–	Garage for 4 cars but only available during the day
*Holywell Hotel, 1 Holywell	4	–	21/–	No garage.
Isis Hotel, Iffley Road	3	–	21/–	Parking space available
King's Arms Hotel, Holywell Street	7	2	22/6	Garage near
Linton Lodge Hotel, Linton Road	3	–	25/–	Parking space available
Melville Hotel, Iffley Road	2	1	18/6	Parking space available
Mitre Hotel, High Street	10‡	8	30/–	Garages available very near
Original Swan Hotel, Cowley	2	–	20/–	Parking space available
Randolph Hotel, Beaumont Street	9‡	25	34/– (£3.3.0 double)	Garage available
Royal Oxford Hotel, Park End Street (near Railway Station)	6	6	31/– 35/– (with private bath-rooms)	No garage but ample car parking facilities near
*Thames Hotel, Iffley Road	3	–	21/–	Parking space available
The Tree Hotel, Iffley	2	–	21/–	Garage space available
*Wilberforce Hotel, Queen Street	3	2	21/–	No garage
Outside Oxford				
Brimpton Grange Hotel, Milton Common, Oxford	6	1	21/–	Garage for 5 cars. (Approximately 12 miles from Oxford)
Harcourt Arms, Nuneham Courtenay, Oxford	4	–	18/–	Garage space available. (Approximately 7 miles from Oxford)
Kings Arms Hotel, Woodstock	4	–	17/6	Parking facilities available. (8 miles from Oxford)
Marlborough Arms Hotel, Woodstock	2	–	25/–	Garage space available. (8 miles from Oxford)

Accommodation in Colleges

	No. of Rooms	*Charges†*	*Notes*
Balliol College	200	£4 13 0	Men only except for about 8 married couples No car parking facilities.
St. John's College	100	£4 16 0	Men only No car parking facilities
Somerville College	120	£3 14 6	Women or married couples No car parking facilities No shoe cleaning service

Times of meals: Breakfast 8.30. Lunch 1.0. Dinner 7.0.

* Hotels marked with an asterisk are unlicensed. All the others are licensed.

† The charge quoted is an inclusive one and covers accommodation and meals from dinner on Wednesday 10 July to breakfast on Saturday 13 July, and includes 10% for gratuities. (This refers to Colleges only).

‡ These rooms have now been taken.

Annual Subscriptions and Contributions. Members' subscriptions and Students' contributions for 1957 became due on 1 January.

	£	s.	d.
Fellows	10	10	0
Associates	6	6	0
Licentiates	6	6	0
Students	2	2	0

For members resident in the trans-oceanic Dominions who are members of Allied Societies in those Dominions, and for members resident overseas in areas where no Allied Society is available, the amounts are as follows:

	£	s.	d.
Fellows	6	6	0
Associates	4	14	6
Licentiates	4	14	6

The R.I.B.A. Appointments Department. Members and Students of the R.I.B.A. and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable for their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

Formal Admission of New Members at General Meetings. New members will be asked to notify the Secretary R.I.B.A. beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. On arrival at the R.I.B.A. on the evening of the General Meeting new members must notify the office of their presence and will then take their places in the seats specially numbered and reserved for their use. On being asked to present themselves for formal admission, the new members will file out in turn into the left-hand aisle and after shaking hands with the President (or Chairman) will return to their seats by way of the centre aisle.

Formal admission will take place at all remaining Ordinary General Meetings of the present Session, with the exception of the following:—9 April, Presentation of Royal Gold Medal.

Kalendar 1956–57: Correction. In the current edition of the Kalendar, the following error occurs:
P. 527. Tideman: John Raymond, should read **Tiedeman,** John Raymond.

Cessation of Membership. Under the provisions of Bye-law 21 the following has ceased to be a member of the Royal Institute: *as Fellow*—Alec Nisbet.

COMPETITIONS

Northern Ireland War Memorial Building. Last day for submitting designs: 30 March 1957.

Proposed Municipal Offices and Civic Hall, Carlisle. Last day for submitting designs in the Final Stage, 1 July 1957.

New Technical College Buildings, Paisley, Scotland. Last day for submitting designs: Noon on 27 March 1957.

International Competition, Geneva. Last day for the despatch of entries: 6 p.m., 15 April 1957.

Full particulars of all the above competitions were published in the JOURNAL for December, pp. 78 and 79.

International Competition, Memorial to Enrico Fermi, Chicago, U.S.A. The International Union of Architects have announced that participation in this competition may now be allowed in view of certain modifications in the conditions made by the promoters and the clarification of some points. The closing date for submitting designs, for persons living outside the United States, has been extended to 10 March 1957.

Full particulars were published in the January JOURNAL, p. 118.

COMPETITION RESULT

New National Opera House at Bennelong Point, Sydney, Australia.

1. Mr. Joern Utzon, Denmark
2. Messrs. J. Marzella, L. Loschetter, W. Cunningham, W. Weissman, M. Brecher, R. Geddes and G. Qualls, Philadelphia
3. Messrs. Boissevain and Osmond [*A*], London.

A list of the competitors whose designs were commended will appear in the JOURNAL for March.

BOARD OF ARCHITECTURAL EDUCATION

Recognition for Exemption from the R.I.B.A. Intermediate and Final Examinations. The Council, on the recommendation of the Board of Architectural Education, have recognised the five years' full-time course at the Department of Architecture, Kingston-upon-Thames School of Art, for the purpose of exemption from the R.I.B.A. Intermediate and Final Examinations.

R.I.B.A. Examination in Professional Practice and Practical Experience. The Examination in Professional Practice and Practical Experience was held in London and Edinburgh on 19 and 20 November 1956. Of the 133 candidates examined, 120 passed and 13 were relegated. The successful candidates are as follows:—

Aldridge: George
Anstis: J. E.
Arch: D. A.
Armistead: B. T.
Askew: Harold
Austin: J. G. M.
Barnett: S.
Bell: Edward
Bennett: D. L.
Bennett: D. R.
Bennett: J. H.
Blake: H. W.
Bonner: G. W. V.
Boyes: P. E.
Broughton: K. J.
Brown: G. D.
Budd: S. G.
Burns: C. W.
Cairns: J. G. H. D.
Carroll: G. F.
Carter: B. B.
Carter: C. H.
Catt: D. C.
Chapman: Miss A. M. G.
Clark: R. F.
Clifford: J. U.
Colwill: Miss J. S.
Comber: P. G.
Connolly: Edward
Cooper: J. C. S.
Craft: R. W.
Cutler: B. J.
Dando: L. C.
Davey: J. R.
Davies: C. F.
Davis: O. O.
Dixon: P. G.
Eade: K. R. J.
Easton: Miss M. R.
Espie: T. A.
Favell: Geoffrey
Fisher: E. G.
Flood: S. A.
Ford: Jack
Forman: Robert
Fowler: R. A.
Franklow: E. G.
Garston: J. W.
Gelsthorpe: J. C.
Gough: William
Greer-Perry: J. R.
Hammond: C. E.
Hanson: John
Hardy: M. C.
Harrison: T. S.
Henshaw: A. J.
Hickox: H. P.
Hine: D. S.
Hollos: Brian
Holmes: G. I.
Hubberstey: Peter
Hughes: Kenneth
Hull: P. R.
Jones: M. W.
Jones: S. R.
Kennedy: P. A.
King: D. R.
Kingdon: J. H.
Kingston: W. J.
Krasucki: P. P.
Latham: K. A.
Leach: Ronald
McArthur: R. H.
McDonald: William
McEachern: R. H.
McGregor: D. R.
Mahdi: A. R.
Marlowe: Miss O. C.
Mason: C. E.
Metcalfe: W. A.
Mitchell: Roy
Moors: R. E.
Owen: D. W.
Pagram: N. J. W.
Palejowski: J. S.
Palmer: H. R.
Pathare: R. S.
Pattison: G. E.
Pereira: A. P.
Pettingell: G. A.
Pettit: D. A.
Phillips: P. P.
Polubiec: Henryk
Randall: R. H. L.
Roberts: G. H.
Sloan: Merrick
Smith: P. T.
Smith: R. M.
Smithers: F. G.
Sparkes: E. A. W.
Spencer: Mrs. P. M.
Stevenson: I. P.
Strachan: Alexander
Stubbs: P. A.
Sture: J. H.
Sutcliffe: K. N.
Tidmarsh: D. S.
Toffolo: J. J.
Tunley: A. N.
Turner: D. I. R.
Tyrer: S. N.
Walker: S. C.
Waterman: C. J.
Weatherly: G. C.
Wesolowski: M. J.
Wickins: S. P.
Williams: G. E.
Williams: N. E. M.
Williamson: F. D.
Wilson: Roy.

ALLIED SOCIETIES

Changes of Officers and Addresses

South Eastern Society of Architects, Guildford District Chapter. Hon. Secretary, F. C. Jepson [*A*], 32 London Road, Guildford, Surrey.

Royal Institute of the Architects of Ireland. President, Gerald McNicholl. Hon. Secretary, John H. Morgan.

East Africa Institute of Architects, Uganda Chapter. Chairman, Lieut.-Col. J. Austen Woodgate, O.B.E. [*A*].

Birmingham and Five Counties Architectural Association. Annual Dinner. The annual dinner of the Birmingham and Five Counties Architectural Association was held on Friday 18 January at the Grand Hotel, Birmingham. The President, Mr. Herbert Jackson, A.M.T.P.I. [*F*], was in the chair and among the guests were the Lord Mayor of Birmingham, the Bishop of Birmingham, Mr. John Betjeman, Mr. Kenneth Cross, President R.I.B.A., the Presidents of the Leicestershire and Rutland, the Liverpool, the Manchester, and the Coventry Societies of Architects and of the Liverpool Architectural Society, and Mr. C. D. Spragg, C.B.E., Secretary R.I.B.A.

The Lord Mayor proposed the toast of the R.I.B.A. and its Allied Societies. He said future generations would recognise that, though perhaps the modern style was a little utilitarian, architects had made the best of the materials and resources at their disposal. The President

R.I.B.A., replying, said that what architects and the building trade as a whole had done since the war was 'perfectly stupendous'. War damage had been cleared, 300,000 houses a year of a quality admired throughout the world, factories, schools, shops, new towns and churches had been built. Mr. Herbert Jackson proposed the toast of 'Our Guests' and Mr. Betjeman replied.

Devon and Cornwall Society of Architects. The R.I.B.A. will award a Bronze Medal for a building of outstanding merit completed in the province of the Devon and Cornwall Society of Architects during the three-year period ended 31 December 1956.

Members other than members of the Association who have done work in the area during the period should write for conditions to the Society's Hon. Secretary. Closing date for nominations is 30 April 1957.

GENERAL NOTES

Leverhulme Postgraduate Fellowship. Applications are invited for a Leverhulme Postgraduate Fellowship in the School of Architecture or the Department of Civic Design, Liverpool University. The Fellowship will be tenable for one year at a value of £500, but may be renewed for a second year at a value of £550.

Applications, three copies, stating age, qualifications and experience, proposed field of research and the names of two referees, and enclosing copies or photographs of work, should be received not later than 1 March 1957 by the Registrar of Liverpool University, Mr. Stanley Dumbell, from whom further particulars may be obtained.

Aluminium. The R. S. Reynolds Memorial Award. A preliminary announcement concerning this was published in the January JOURNAL (p. 119). Full particulars are now available and can be obtained from the Secretary R.I.B.A.

A.A. Lantern Slide Collections. The Council of the Architectural Association would like to remind all members of the R.I.B.A. that the Association's large collection of black-and-white lantern slides (3¼ in. by 3¼ in.) is always available for their use and that the hiring fee remains at 4d. per slide.

In addition the Council would like it to be known that a collection of 2 in. by 2 in. slides, in colour when possible, is being built up. Though this collection is still in its infancy a limited number of sections are now available for loan.

Because of the extra difficulty of acquiring the colour transparencies and of obtaining copies of the high standard considered proper for an architectural collection, it is proposed that the charge for these shall be 6d. per slide, instead of the 4d. charged for the black-and-white, and because they may be irreplaceable (having no negative) the penalties for loss or damage will perforce be heavy—£1 per slide, limited to a total of £10.

Borrowers are asked to accept without question the limited scope of the collection, knowing that it will widen month by month as the collection builds up. The existing collection of 3¼ in. slides will, of course, be available as before.

Borrowers are asked to come with a clear idea of what they need and, if possible, a written list, and to make their appointment in good time—at least 24 hours in advance. The hours are 10 a.m. till 5.30 p.m. (Monday to Friday).

The first sections to come into use will be the following: Egyptian (black-and-white only). Greek (black-and-white and colour). Colour only: Modern U.S.A. English nineteenth century. Modern Dutch. Modern English. Modern Italian.

The next sections to be converted are: Roman, Byzantine, Romanesque, Medieval and Exhibitions, each having a few in colour.

York Institute of Architectural Study. The York Institute of Architectural Study is arranging two courses to be held in April. Both courses have the full support of the R.I.B.A. A general course on *Protection and Repair of Historic Buildings* will be held 2–11 April (7 guineas), followed by a course on *The Care of Churches*, 11–16 April (4 guineas).

Application forms for the courses may be obtained from the Secretary, Mr. J. P. West-Taylor, M.A., Micklegate, York, and should be returned not later than 11 March.

Congrès Internationale des Architectes et Techniciens des Monuments Historiques. A congress of this title will be held at the Musée des Monuments Français, Palais de Chaillot, Paris, from 6–11 May 1957. Following the congress, from 13–18 May there will be a choice of four tours: Normandy–Brittany, Burgundy, Valley of the Loire, and Provence.

A full programme of papers and discussions has been arranged with simultaneous translation into English. The topics cover the recruitment and training of the historic monuments architect, the technical and scientific aspects of his work, relations with archaeologists, town planners, etc.

Particulars and reservation forms (which must be returned by 7 April) are obtainable from Havas Exprinter, 21 Connaught Street, Marble Arch, London, W.2. (AMBassador 3224.)

R.I.B.A. Cricket Club. Annual Dinner and A.G.M., 1956. The tenth annual dinner of the R.I.B.A. Cricket Club was held at the Architectural Association on Friday 23 November 1956. The President of the Club, Mr. Peter Adams, was in the Chair: the guests included Mr. Gontran Goulden, President of the Architectural Association, and representatives of the Club's opponents.

The toast of 'The Club' was proposed by Gontran Goulden and Roger Norton replied. The toast of 'The Guests' was proposed by John Seward and the response was by Bob Tobitt.

At the Annual General Meeting, which was held before the dinner, officers were elected for 1957. President is P. W. Adams, Captain C. A. R. Norton, Vice-Captain and Secretary D. L. Robinson.

The meeting unanimously passed a vote of thanks to R. R. Fairbairn on his retirement from the Committee, on which he had served from its inception in 1947.

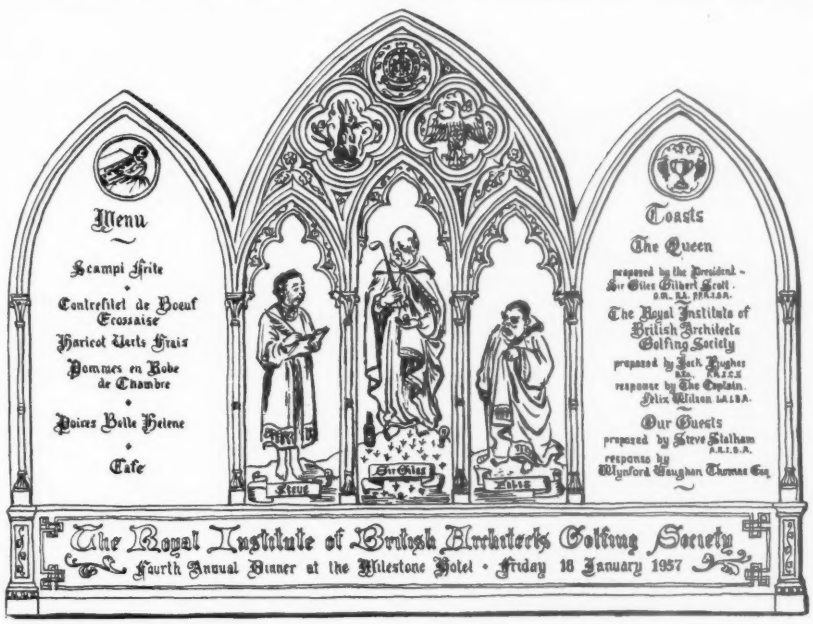
It was announced that the following fixtures had been arranged for 1957:

22 May	*v*	L.M.B.A.	11.30 a.m.
12 June	*v*	A.A.	2.15 p.m.
20 June	*v*	Vitruvians	2.15 p.m.
10 July	*v*	Blue Circle	11.30 a.m.
28 August	*v*	Club Cricket Conference	11.30 a.m.
11 Sept.	*v*	R.I.C.S.	11.30 a.m.

Any members interested in joining the Club should write to D. L. Robinson, Messrs. Ronald Ward and Partners, 29 Chesham Place, London, S.W.1.

R.I.B.A. Golfing Society. Annual Dinner. The Fourth Annual Dinner of the R.I.B.A. Golfing Society was held at the Milestone Hotel, Kensington, on 18 January. The toast of the Society was proposed by Mr. J. Hughes, F.R.I.C.S., who referred to the long history of the Society and of the many famous architects who had been golfers and members of the Society.

The Captain, Felix Wilson [*L*], in his reply mentioned the great loss to the Society of the Captain elect for 1957—Joseph Emberton (see January JOURNAL, p. 123)—and told members and their guests that through the generosity of Mr. Emberton's widow a memorial challenge trophy was being presented which would be for a knock-out tournament for Society members.


Menu
Escampi Frite
Contrefilet de Boeuf Ecossaise
Haricot Verts Frais
Pommes en Robe de Chambre
Poires Belle Helene
Cafe
Toasts
The Queen
The Royal Institute of British Architects Golfing Society
Our Guests
The Royal Institute of British Architects Golfing Society
Fourth Annual Dinner at the Milestone Hotel • Friday 18 January 1957

Menu Cover by John Lansdell

Notes from the Minutes of the Council

MEETING HELD 8 JANUARY 1957

New Year Honours. The congratulations of the Council were sent to the members and others on whom H.M. the Queen had conferred honours in the New Year list (see January JOURNAL, p. 85).

President of the Royal Academy. The congratulations of the Council were sent to Mr. Charles Wheeler on his election as President of the Royal Academy.

The Honorary Associateship. The Secretary reported that Mr. John Newsom, C.B.E., Education Officer for Hertfordshire, had accepted the Council's nomination for election as an Honorary Associate.

Appointments. (*a*) *R.I.B.A. Architecture Bronze Medal: R.I.B.A. Representatives to serve on Juries to consider an Award.* (i) In the area of the Berks, Bucks and Oxon Architectural Association—Mr. Paul Mauger [*F*], President of the Essex, Cambridge and Hertfordshire Society of Architects; (ii) In the area of the West Yorkshire Society of Architects—Mr. J. Lewis Womersley [*F*]. (*b*) *London University Architectural Education Committee: R.I.B.A. Representatives.* Mr. D. L. Bridgwater [*F*] and Mr. Hubert Lidbetter [*F*] re-appointed for year beginning 1 March 1957. (*c*) *R.I.B.A. Representative on B.S.I. Committee BMB/1—Bituminous Roofing Felt and Damp Proof Courses.* Mr. C. M. Cuthill [*A*]. (*d*) *R.I.B.A. Representatives on Ministry of Works Building and Civil Engineering Regional Joint Committees for three-year period beginning 1 February* 1957. No. 1 Northern (Newcastle), Mr. J. H. Napper [*F*] (re-appointed). No. 2 East and West Riding (Leeds), Mr. Noel Pyman [*F*] (re-appointed). No. 3 North Midland (Nottingham), Mr. J. Gordon Woollatt, D.F.C. [*F*] (in place of Mr. C. F. W. Haseldine [*F*]). No. 4 Eastern (Cambridge) Professor J. Leslie Martin [*F*] (in place of Mr. Peter Bicknell [*F*]). No. 5 London, Mr. Richard Sheppard [*F*] (re-appointed). No. 6 Southern (Reading), Mr. A. B. Waters, M.B.E., G.M. [*F*] (re-appointed). No. 7 South Western (Bristol), Mr. T. W. Snailum [*F*] (in place of Mr. J. Ralph Edwards [*F*]). No. 8 Wales (Cardiff), Mr. Norman Thomas [*A*] (in place of Mr. John Bishop [*A*]). No. 9 Midland (Birmingham), Mr. S. Lunn Whitehouse [*L*] (re-appointed). No. 10 North Western (Manchester), Mr. H. M. Fairhurst [*A*] (re-appointed). No. 12 South Eastern (Tunbridge Wells), Mr. R. Duncan Scott [*F*] (n place of Mr. H. Edgar Bunce [*F*]). (*e*) *Rotherham Technical College: R.I.B.A. Representative on Building Advisory Committee.* Mr. A. D. P. Jenkinson [*A*] (in place of Professor Stephen Welsh [*F*]). (*f*) *Southern Regional Council for Further Education: R.I.B.A. Representative on Advisory Committee for Building.* Mr. R. W. Cave [*F*] re-appointed.

Christmas Holiday Lectures for Young People. The President referred to the Christmas Holiday Lectures given by Mr. G. Grenfell Baines [*A*] which had been attended by large audiences of young people who had shown their keen interest. On his proposition a hearty vote of thanks was passed in favour of Mr. Grenfell Baines.

Completion of R.I.B.A. Building. The Council, after considering approximate estimates submitted by the architect, confirmed their previous decision in principle to complete the two top storeys of No. 66 Portland Place and gave authority for the contract to be placed.

Membership. The following members were elected: As Honorary Fellows 6; as Honorary Associates 6; as Fellows 6; as Associates 38.

Students. 139 Probationers were elected as Students.

Applications for Election. Applications for election were approved as follows: *Election 5 February* 1957: As Honorary Associates 1; as Associates 128. *Election 7 May* 1957 (*Overseas Candidates*), As Associates 3.

Applications for Reinstatement. The following applications were approved: As Associates: Archibald Gilchrist Paton, Joseph Fielden Dixon; as Licentiate: Edward Lloyd George Scriven [*Retd. L*].

Resignations. The following resignations were accepted with regret: Gerald Souden Bridgman [*F*], Maurice Chesterton [*F*], James Andrew Clarke [*F*], Herbert Sydney Guildford Eldred [*F*], Guy St. John Makin [*F*], Clifford Medley [*F*], Herman Alexander Scott [*F*], Frank Dorrington Ward [*F*], Arthur Bashforth [*A*], Guy Percy Dumville Botterell [*A*], William Archer Forrest Bowen [*A*], Miss Barbara Neilson Brodie [*A*], Miss Patience Lisa Clifford [*A*], Archibald Cooper [*A*], Denzil Merton Dawbarn [*A*], Mrs. Marjorie Farrer [*A*], Colin Carmichael Giffard [*A*], Hugh Foley Gossling [*A*], Eric Macauley Ednie Gourley [*A*], Donald Coutts Howell [*A*], Mrs. Helen Betty Ingleby [*A*], Mrs. Joyce May Jones [*A*], Mrs. Beryl May Moffat [*A*], Peter Eadington Moir [*A*], Peter Muller [*A*], Mrs. Clarice Marian Munns [*A*], Mrs. Daphne Marion Nicholson [*A*], Jaykrushna Gopalji Panchal [*A*], Miss Dorothy Mary Heather Room [*A*], Mrs. Christine Aline Stafford [*A*], Hugh John Widdington Stafford [*A*], Mrs. Hilary Talbot-Ponsonby [*A*], Harris Stephens Triscott [*A*], Martin Robert Whitworth [*A*], Gilbert Douglas Ash [*L*], George Boag Baird [*L*], John Trevor Freeman [*L*], Alfred Edward Merriott [*L*], Clement Frost Overy [*L*], Cyril Edwin Aubrey Wyatt [*L*].

Applications for Transfer to Retired Members' Class under Bye-law 15. The following applications were approved: As Retired Fellows: William Arthur Cornell, Major Basil Charlton Deacon, William Glen Dobie, Robert Harold Goodsall, Samuel Harrison, Albert Henry Jones, Frederick McKnight, Charles Edward Serpell, Hubert Spencer Silcock, Gilbert George Speight, Herbert Spink, Marshall Eyre Walker. As Retired Associates: Cecil Branston Austin, Charles Downing Barnard, Francis James Barton, Albert Egerton Lance Bower, Thomas Stapleton Copplestone, Laurence Lavery Corkill, Ronald Pern Easton, John Gray Martin, Frederick Evelyn Openshaw, Samuel Rubery, M.C., William Love Starling. As Retired Licentiates: Harry Arthur Coldman, Frank James Edwards, Herbert William Franks, James Walter Hanson (Serial No. 1051), Reginald Victor Hayman, M.B.E., William Ewart Gladstone Hull, Cecil Frederick Ashfield King, The Rev. Canon Edward Penard Laycock, B.E.M., Horace Cecil Marshall, Ernest William May, Harold George Rowlands, Renfrew Spencer, Oliver Mandeville Weller, Donald George Wise, Horace John Young.

Obituary. The Secretary reported with regret the death of the following members: Herbert Arthur Cox, F.S.A. [*Hon. A*], Ernest John Hamlin [*Hon. A*], Dr. Paul Bonatz [*H.C.M.*], John Wallace Williamson [*F*], Vivian Palmer Haughton [*A*], James Maxwell Scott [*A*], William David Gravell [*Retd. A*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

MEETING HELD TUESDAY 5 FEBRUARY 1957

Appointments. (*a*) *R.I.B.A. Representation on the Architects' Registration Council for* 1957–58. (i) 29 *Representatives on the Architects' Registration Council:* Harold Anderson [*F*], D. H. Beaty Pownall [*F*], J. B. Brandt [*F*], J. T. Castle [*A*], L. A. Chackett [*F*], Thomas S. Cordiner [*F*], Dr. F. F. C. Curtis [*A*], R. E. Enthoven [*F*], R. O. Foster [*F*], S. Vincent Goodman [*F*], R. D. Hammett [*F*], J. K. Hicks [*F*], R. J. Hurst [*F*], H. L. Kelly [*F*], Cecil Kennard [*F*], H. Martin Lidbetter [*F*], Howard V. Lobb [*F*], E. D. Lyons [*A*], S. W. Milburn [*F*], E. D. Mills [*F*], T. E. North [*F*], J. T. W. Peat [*F*], F. B. Pooley [*F*], F. L. Preston [*F*], A. L. Roberts [*F*], W. A. Rutter [*F*], R. H. Uren [*F*], A. Neville Ward [*A*], David B. Waterhouse [*A*]. (ii) *Four Representatives on the Admission Committee:* L. A. Chackett [*F*], H. Martin Lidbetter [*F*], E. D. Lyons [*A*], J. T. W. Peat [*F*]. (*b*) *R.I.B.A. Architecture Bronze Medal: Representative on Jury Convened by*—(i) *Liverpool Architectural Society*, Mr. Leonard C. Howitt [*F*], President, Manchester Society of Architects. (ii) *Manchester Society of Architects*, Mr. L. W. M. Alexander [*A*], President, Liverpool Architectural Society. (*c*) *C.P.R.E.*, Mr. Clifford Culpin [*F*] in place of Mr. R. T. Kennedy [*A*]. (*d*) *Central Panels Committee*, Mr. Herbert Taylor [*F*] in place of Mr. R. T. Kennedy [*A*]. (*e*) *Building Industry Productivity Conference, London*, Mr. R. O. Foster [*F*] in place of Mr. Edward D. Mills [*F*]. Note: the second representative is Mr. Howard V. Lobb [*F*]. (*f*) *University of Liverpool: R.I.B.A. Representative on Court.* Mr. L. W. M. Alexander [*A*], President, Liverpool Architecture Society in place of Mr. F. J. M. Ormrod [*F*]. (*g*) *Registered Plumbers' Association: R.I.B.A. Representative at Annual Meeting of General Council, Perth*, 6 *June* 1957. Mr. L. A. Rolland [*F*], President-designate, Dundee Institute of Architects. (*h*) *R.I.B.A. Representatives on Codes of Practice Committees and B.S.I. Committees: SFE/13—Solid Fuel Appliances for Low Cost Housing*, Mr. G. M. Kingsford [*F*]. *MECP/2—Gas Appliances*, Mr. George Fairweather [*F*] in place of Mr. Stanley Heaps [*F*]. (*j*) *Ministry of Works Building and Civil Engineering Regional Joint Committee for No. 4 Region:* Mr. Humphrey Boardman [*F*] in place of Professor J. Leslie Martin who was unable to accept nomination.

Standing Committee on Bye-laws and Building Regulations. It was decided to set up a Standing Committee on Bye-laws and Building Regulations consisting of the following members: Mr. T. B. Harper Ellis [*A*]; Mr. R. D. Hammett [*F*]; Mr. W. A. P. Jack [*F*] (Glasgow), Chairman of the R.I.A.S. Practice Committee; Mr. Cecil Kennard [*F*]; Mr. R. A. Simons [*L*], Building Research Station; Mr. F. G. Southgate [*A*]; Mr. S. D. Studd, Chief Building Surveyor, Manchester Corporation; Mr. C. S. White [*F*].

Membership List

ELECTION: 5 FEBRUARY 1957

The following candidates for membership were elected on 5 February 1957.

AS HON. ASSOCIATE (1)

Newsom: John Hubert, C.B.E., Ashwell.

AS ASSOCIATES (143)

Abbott: Clark Warner, B.Arch.(McGill), Devonshire, Bermuda.
Aldridge: George, Farnworth.
Anstis: John Emile, Bexley.
Arch: Dennis Alexander, Watford.
Armistead: Brian Trastour, Carlisle.
Askew: Harold, Stockport.
Austin: John Gordon Martin, Dipl.Arch. (Northern Polytechnic).
Barnett-Bialoskorski: Stanley.
Bell: Edward, Hillsborough, Co. Down.
Bennett: Denis Ronald, Ashford. Middlesex.
Berlowitz: Manfred, B.Arch.(C.T.), Bulawayo, S. Rhodesia.
Blake: Hugh Worsley, Bristol.
Bonner: Gordon William Victor, Maidstone.
Boyes: Peter Elliott, Middlesbrough.
Broughton: Keith Jeffrey, Bradford.
Brown: Gordon Douglas, Sevenoaks.
Budd: Sidney Grahame, Maidstone.
Burns: Cecil William, Sheffield.
Cairns: James George Hamilton Dickson, Oxshott.
Canterbury: Robert, Dandenong, Victoria, Australia.
Carroll: Gerald Francis, Edinburgh.
Carter: Bruce Bonham, Portsmouth.
Carter: Charles Henry.
Catt: Dennis Charles, Smethwick.
Chapman: (Miss) Anita Monica Gwendoline, Bristol.
Charlton: Ian Douglas, B.Arch. (Queensland), Brisbane, Queensland, Australia.
Clark: Robert Francis.
Clifford: John Ulph, Nottingham.
Colwill: (Miss) June Selby, Porthcawl.
Comber: Philip George, Southwick.
Connolly: Edward, Huntingdon.
Conrad: William Arnold Henry, B.Arch. (Queensland), Brisbane, Queensland, Australia.
Cooper: John Crandon Slade, Wells.
Craft: Richard Walter, D.F.C., Richmond, Surrey.
Cutler: Bryan John, Cookham.
Dando: Leslie Cooper, Romford.
Davey: John Roland, Reading.
Davies: Cecil Frederick, Dorchester.
Davis: Owen Oldfield, Winchester.
Dawson: Robert, D.A.(Edin.), Edinburgh.
Dixon: Peter Guy, Bourne.
Eade: Keith Richard James, Worcester.
Easton: (Miss) Mary Ruth, Hastings.
Espie: Thomas Ainslie, Fife.
Favell: Geoffrey.
Fawcett: John William, North Adelaide, South Australia.
Fisher: Eric Gordon.
Flood: Stanley Arthur, Ilford.
Ford: Jack, Doncaster.
Fordy: Basil, Dipl.Arch.(Leeds), Scarborough.
Forman: Robert, Bristol.
Fowler: Ronald Arthur, Brighton.
Francklow: Eric Godfrey, F.R.I.C.S., Bexleyheath.
Freeman: Robert Glasgow, A.S.T.C.(Arch.), Adelaide, South Australia.
Garnham: Derek, Dipl.Arch.(Leeds), Pontefract.
Garston: John William, Manchester.
Gelsthorpe: John Charles, Nottingham.
Godhard: Peter Alfred, B.Arch.(Sydney), Wahroonga, N.S.W., Australia.
Gough: William, Banbury.
Greer-Perry: John Reginald, Weston-super-Mare.
Grey: Peter Alexander Harvey, Dip.Arch. (Cardiff), Cardiff.
Hammond: Colin Edward, Birmingham.
Hansford: Brian Harry, Portsmouth.
Hanson: John.
Hardy: Malcolm Charles, Swansea.
Harrison: Thomas Stanley, Warrington.
Henshaw: Alec James, Sevenoaks.
Herbert: Kenneth Robert, Dip.Arch.(Nottm.), Nottingham.
Hesketh: Martin Rayner, Dipl.Arch.(Oxford), Bolton.
Hickox: Herbert Philip, Chalfont St. Peter.
Hine: Douglas Stewart.
Hollos: Brian, Halifax.
Holmes: Gerrard Inman.
Hotchin: George Benjamin, Dip.Arch.(Auck., N.Z.), Auckland, New Zealand.
Hubberstey: Peter, Blackpool.
Hughes: Kenneth, Wallasey.
Hull: Peter Ronald, Oxford.
Inman: John Kenneth, Blackpool.
Jamieson: Edward Ross Hunter, D.A.(Dundee), Carnoustie.
Jones: Malcolm Warden.
Jones: Stanley Reginald, Ferndown.
Jowett: Donald, Dipl.Arch.(Leeds), Halifax.
Kennedy: Peter Adam.
Kingdon: John Hugh, Guildford.
Kingston: William James, Maidstone.
La Bern: Stanley Philip, Dip.Arch.(The Polytechnic), Welling.
Latham: Kenneth Alfred, Preston.
Leach: Ronald, Westgate-on-Sea.
McArthur: Ronald Hunter, Marple.
McDonald: William, Glasgow.
McEachern: Robert Hill, Renfrew.
MacGregor: David Roy, B.A.(Cantab.).
Mahdi: Abdul Rahman.
Marlowe: (Miss) Olwen Cynthia, Birmingham.
Marshall: Alexander Malloch, D.A.(Dundee), Dundee.
Mason: Charles Edgar, Wolverhampton.
Metcalf: William Anthony, Nelson.
Mitchell: Roy, Chester.
Moors: Robin Edmund.
Newall: Antony David, Dip.Arch.(Birm.), Coventry.
Owen: David William.
Palejowski: George S., Cleethorpes.
Palmer: Hubert Ralph, Rotherham.
Pattison: George Eric, Newcastle upon Tyne.
Pegram: Norman James, Watlington.
Pereira: Albert Percy, Carshalton.
Pettingell: Geoffrey Antony, Cambridge.
Pettit: Desmond Alan.
Polubiec: Henryk.
Prabhawalkar: Anant Ramchandra, Chandigarh, Punjab, India.
Randall: Russell Herbert Lewis, Upminster.
Roberts: Gordon Harold, Worcester.
Ryan: Shane Virgil, Brisbane, Queensland, Australia.
Sayers: (Miss) Elizabeth Inglis, D.A.(Glas), Glasgow.
Sloan: Merrick, Liverpool.
Smith: Graham Lawrence, B.Arch.(Auck., N.Z.), Brunei, Borneo.
Smith: Peter Cowie, Salisbury, S. Rhodesia.
Smith: Peter Turle, Leatherhead.
Smith: Royden Matthew, Dudley.
Smith: Travis Jarvie, Dip.Arch.(Auck., N.Z.), Rotorua, New Zealand.
Smithers: Frederick George, Bishop's Stortford.
Sparkes: Ernest Alfred Walter, Havant.
Stevenson: Ian Paul, Trowbridge.
Strachan: Alexander, Perth.
Stubbs: Peter Anthony, D.S.C., Rochester.
Sture: John Herbert, Skipton.
Sutcliffe: Kenneth Noel, Petts Wood.
Tidmarsh: Derek Sidney, Croydon.
Tudor: Graham Dale, B.Arch.(Melbourne), Victoria, Australia.
Tunley: Anthony Neville, B.Arch., M.C.D. (L'pool), A.M.T.P.I., Derby.
Turner: Dennis Ivan Ross, Croes-y-Ceiliog.
Tyrer: Stewart Norman, Liverpool.
Vogt: Anthoney George, Dipl.Arch.(U.C.L.), Wallington.
Walker: Stanley Charles, Banstead.
Warburton: Brian, Manchester.
Warr: Roger John Churchill, Dip.Arch.(Auck., N.Z.), Christchurch, New Zealand.
Waterman: Colin John, Olton.
Weatherly: Graham Charles, Leavesden.
West: Herbert George, Dip.Arch.(Abdn.), Gardenstown.
Williams: Gordon Edward.
Williams: Norman Edward Morgan, Dip.Arch. (Manchester), Radnor.
Williamson: Frederick David, A.R.I.C.S., A.M.T.P.I., Bridgend.
Wilson: Roy, Stockport.

Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. D. A. de G. Abbott [*A*] has been appointed lecturer at the School of Architecture, South Australia School of Mines and Industries, North Terrace, Adelaide, S. Australia.

Mr. Zahir-ud-Deen Khwaja, A.M.T.P.I. [*A*], has been appointed Senior Architect, Pakistan P.W.D., Karachi, Pakistan.

Mr. Allan G. McCulloch, A.M.T.P.I. [*A*], has been appointed Senior Planning Officer to Cumbernauld Development Corporation.

Mr. S. G. Pradhan [*A*] has been appointed Town Planning Officer (Grade 1), Town Planning Organisation, B.4/12 Asaf Ali Road, New Delhi 1, India.

Mr. B. N. Rahalkar [*A*] has been appointed to a similar post, and will be pleased to receive trade catalogues.

Mr. Jan. A. Sliwa [*A*] has been appointed Senior Assistant Architect to the Oxford Regional Hospital Board and his private address is now 17 William Street, New Marston, Oxford.

Mr. W. A. Weatherhead [*A*] has been appointed Assistant Secretary (Works and Buildings) to the United Bristol Hospitals, Bristol Royal Infirmary, Bristol 2, and will be pleased to receive trade catalogues, etc.

Mr. Alexander Milne Wilson [*A*] has been appointed County Architect and Planning Officer to the County of Banffshire. Mr. Wilson's future address will be: County Architect's Office, 13 Cluny Square, Buckie, Banffshire, Scotland (Buckie 3303).

PRACTICES AND PARTNERSHIPS

Mr. David Bates [*A*] has begun private practice at Russell Court, Cairo Road, Lusaka, Northern Rhodesia (P.O. Box 1032, Telephone 3472) and will be pleased to receive trade catalogues, etc.

Messrs. Geoffrey Bazely & Barbary [*FF*] have opened an additional office in Plymouth. Addresses and telephone numbers are now as follows: 15/16 Alverton, Penzance (Penzance 2218/9): 1 Church Street, St. Austell (St. Austell 1103): 5 Portland Square, Plymouth (Plymouth 66224).

Mr. Charles Leonard Bird [*A*] and **Mrs. Maureen Bird** [*A*] (née Walter) are now in partnership at 26 Roding View, Buckhurst Hill, Essex (Buckhurst 0998).

Messrs. Biscomb and Ferrey [*L*] of 12 Minster Yard, York, have taken into partnership Mr. A. M. Mennim [*A*].

The partnership of **Collins & Calton (Mr. Herbert Collins,** M.T.P.I. [*F*], and **Mr. J. Norman Calton** [*L*]) has been dissolved by mutual consent. For the time being Mr. Collins will continue to use the address of 32 Carlton Crescent, Southampton. Mr. Calton should be addressed at his home address of 23 Thornhill Park Road, Bitterne, Southampton.

Mr. W. J. Freeman [*A*] having retired from the firm of **Howell, Freeman & Batten,** the remaining partners, **Mr. G. Batten** [*L*] and **Mr. E. W. May** [*L*], will continue the practice at 17 Blagrave Street, Reading, under the same title.

Mr. O. Garry [*A*] has taken into partnership **Mr. S. Frederick Dennis** [*A*] and **Mr. G. John Hawkins** [*A*]. The firm will continue to practise at the same address under the title **Oscar Garry and Partners.**

Mr. Peter G. Hemingway [*A*] has entered into partnership with Mr. Laubenthal and the firm are practising under the title of **Hemingway & Laubenthal** at Edmonton, 10166–101 Street, Kitchen Building, Room 220, Alberta, Canada, and will be glad to receive trade literature.

Mr. John G. D. Henderson [*A*], Hoe House, Peaslake, Surrey, has taken into partnership **Mr. L. J. Day** [*A*] and **Mr. P. G. England** [*A*]. The firm will practise under the name of **Henderson, Day & England** at the above address and at 18 Gower Street, London, W.C.1.

Mr. Percy Gray [*F*] **(Hooper, Belfrage & Gray** [*F*/*A*]) has entered into partnership with Mr. Robert R. McKee, M.R.A.I.C., under the title of **McKee and Gray,** Marine Building, Vancouver 1, British Columbia. The firm is in association with The Rankin Co. Ltd., Consulting Engineers, Montreal, and with Messrs. Brown and Blauvelt, Consulting Engineers, New York. Messrs. Hooper, Belfrage & Gray have taken into partnership **Mr. A. C. Birch** [*A*] and the practice will be continued from Donington House, Norfolk Street, Strand, W.C.2 (TEMple Bar 1346/7) in association with the above firms.

Mr. J. S. Houghton [*L*] has purchased the practice of the late Mr. G. P. Stainsby [*F*] of Stockton-on-Tees and the practice will now be carried on under the name of **Stainsby & Houghton** at 57 High Street, Stockton-on-Tees, Co. Durham (Stockton 66093). Mr. Houghton has closed his office at Pickering and has changed his Whitby address to 9 Skinner Street, Whitby (Whitby 938).

Mr. Ninian Johnston, A.M.T.P.I. [*F*], has taken into partnership **Mr. Frank Campbell** [*A*]. The title of the firm will remain as before, Boswell, Mitchell & Johnston, and the address 256 West George Street, Glasgow (Douglas 1863/4).

The partnership of **Messrs. Kimpton & Freeman (Mr. C. S. Kimpton** [*F*] and **Mr. David Freeman,** A.M.T.P.I. [*A*]) has been dissolved by mutual consent as from 31 December 1956. The practice will be continued from the former address under the title of **C. S. Kimpton. Mr. David Freeman** will practise under his own name at Old Bank Chambers, Bracknell, Berks (Bracknell 1440).

Mr. Derek L. D. Morgan [*A*] has begun private practice at Cargen House, P.O. Box 20033, Nairobi, Kenya, East Africa, where he will be pleased to receive trade catalogues, samples, etc.

Messrs. Raworth Hill & Browne [*F*] have taken into partnership **Mr. P. P. Hubbard** [*A*], who has for some time been associated with the firm. The title of the firm remains unchanged, but the address has been changed to 16 Wimpole Street, London, W.1. (LANgham 3607/8).

Mr. S. T. C. Reeks [*A*] has retired from the firm of S. T. C. Reeks & T. L. Brown, Khartoum, Sudan, and has begun practice at his private address of 'Rosemullion', St. Mawes, Cornwall (St. Mawes 374). He will be pleased to receive trade circulars, etc.

Mr. David C. Scott [*A*] has closed his practice at Straquhan, Fountain Road, Golspie, Sutherland.

Mr. E. R. Saxon Snell [*L*] upon the retirement of his partner Mr. George W. Smith [*F*] of 6 New Square, Lincolns Inn, London, W.C.2, has taken over the practice and will continue at the same address under the name of **E. R. Saxon Snell.**

Mr. Alan C. Turner [*A*] has taken into partnership **Mr. Robert A. Kitching** [*A*]. The practice will continue at 20 Stone Street, Gravesend, Kent (Gravesend 6996), under the title of **Turner and Kitching.**

Messrs. Daniel Watney, Eiloart, Inman and Nunn of The Charterhouse, London, E.C.1, have taken into partnership **Mr. Martin Platt** [*A*]. The title of the firm will remain unchanged.

Messrs. Westwood, Sons & Harrison [*FF*/*A*] of 19 Broadstone Place, Baker Street, London, W.1, are opening another office at 21 Suffolk Street, S.W.1 (TRAfalgar 4411). All correspondence concerning work being dealt with by **Mr. Bryan Westwood** [*F*], **Mr. Norman Westwood** [*F*] and **Mr. E. G. J. Chapman** [*A*] should be sent to the Suffolk Street address.

Mr. J. D. Whitehouse [*A*] has begun practice at 65a Pillory Street, Nantwich, Cheshire, in association with Messrs. Bernard Taylor and Associates, and will be pleased to receive trade literature.

CHANGES OF ADDRESS

Mr. Trevor Dannatt [*A*] has moved his office to 115 Crawford Street, London, W.1. (WELbeck 4891).

The present address of **Mr. Peter Philip Gibbons** [*A*] is Messrs. Ferrie & Lobban, Emmco Building, 79 Anson Road, Singapore 2.

Mr. E. R. B. Harriss [*A*] has moved to 185 Piccadilly, W.1.

Mr. Frank H. Heaven [*A*] has moved to 49 Chelmsford Road, South Woodford, London, E.18.

Mr. Malcolm Hislop [*A*] has moved to 'The Nutshell', 43 Whitehouse Crescent, Sutton Coldfield, Warwickshire, and will be pleased to receive trade catalogues, etc.

Mr. M. K. Levy [*A*] has moved to 64 Tarranbrae, Willesden Lane, London, N.W.6.

Messrs. McKillop and Lawrie [*AA*] have moved their offices to British Linen Bank Buildings, 41A High Street, Inverness.

Mr. C. Stanbury Madeley [*A*] has moved to 22 Masshouse Lane, Birmingham 5.

Mr. Norman C. Millin [*A*] has moved to 3 Horselers, Bennets End, Hemel Hempstead, Herts.

Mr. Keith P. Roberts [*L*] has transferred his St. Albans office to 17 Verulam Road, St. Albans, Herts (St. Albans 56886), and his London office to 16 Brook Street, W.1 (GROsvenor 8381–2).

Mr. Ellis E. Somake [*F*] has moved to Albury Edge, Rockshaw Road, Merstham, Surrey (Merstham 23).

Mr. David Allan Stevenson [*L*] has changed his address to 198 Main Street, Chapelhall, By Airdrie, Lanarkshire, Scotland.

The address of **Mr. J. H. R. Stevenson** [*A*] is now c/o Central Mortgage and Housing Corporation, Montreal Road, Ottawa, Ontario, Canada.

The address of **Mr. P. N. K. Turkson** [*A*] is now Kumasi Planning Committee, P.O. Box 40, Kumasi, Gold Coast.

Mr. A. Underhill [*F*] has changed his private address to 305 Salmon Street, Kingsbury, London, N.W.9 (COLindale 4589).

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Partnership or senior appointment carrying full responsibilities leading to partnership required by Fellow with 18 years' experience at home and abroad. Capital available in proportion to prospects, and London or surrounding counties preferred. Own office available if considered advantageous. Box 3, c/o Secretary, R.I.B.A.

Practice or part practice required by Fellow. High-class varied experience in official work and private practice; at present sharing a successful practice but wishful to expand. Some capital available. Box 4, c/o Secretary, R.I.B.A.

Architect approaching retiring age wishes to dispose of his practice and freehold office premises in North Hampshire. Box 5, c/o Secretary, R.I.B.A.

Architect, town planner, landscape architect, age 32, university trained, triple prizewinner, 10 years' experience private practice, county, county borough, borough and New Towns and 4 years' teaching experience seeks partnership or position leading to partnership. Some capital available. Willing travel abroad. Car owner. Box 6, c/o Secretary, R.I.B.A.

Associate intending to go abroad wishes to sell long-established practice in mid-Cornwall. Mainly domestic work. Box 7, c/o Secretary, R.I.B.A.

WANTED

Wanted. 6 D.E. plan chests, Anglepoise lamps, metal filing cabinets. Box 8, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the JOURNAL.

INSURANCE PROBLEMS

The A.B.S. Insurance Agency Ltd. offers skilled advice and guidance on practical insurance problems. Architects are invited to take advantage of this service, which applies to personal insurances as well as to the various types of cover required in professional practice.

THE ARCHITECTS' BENEVOLENT SOCIETY benefits from all insurance business transacted through the Agency. In the case of Life Assurance and Pension policies special rebates in premium are granted to architects and their assistants.

Mr. E. D. Kinnish, an experienced insurance official, has been appointed Manager of the Agency, and he is in touch with the leading Life, Fire and Accident Offices and with important Lloyd's Brokers. Please address enquiries to:—

The Manager,
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London, W.1.
Telephone: WELbeck 1526